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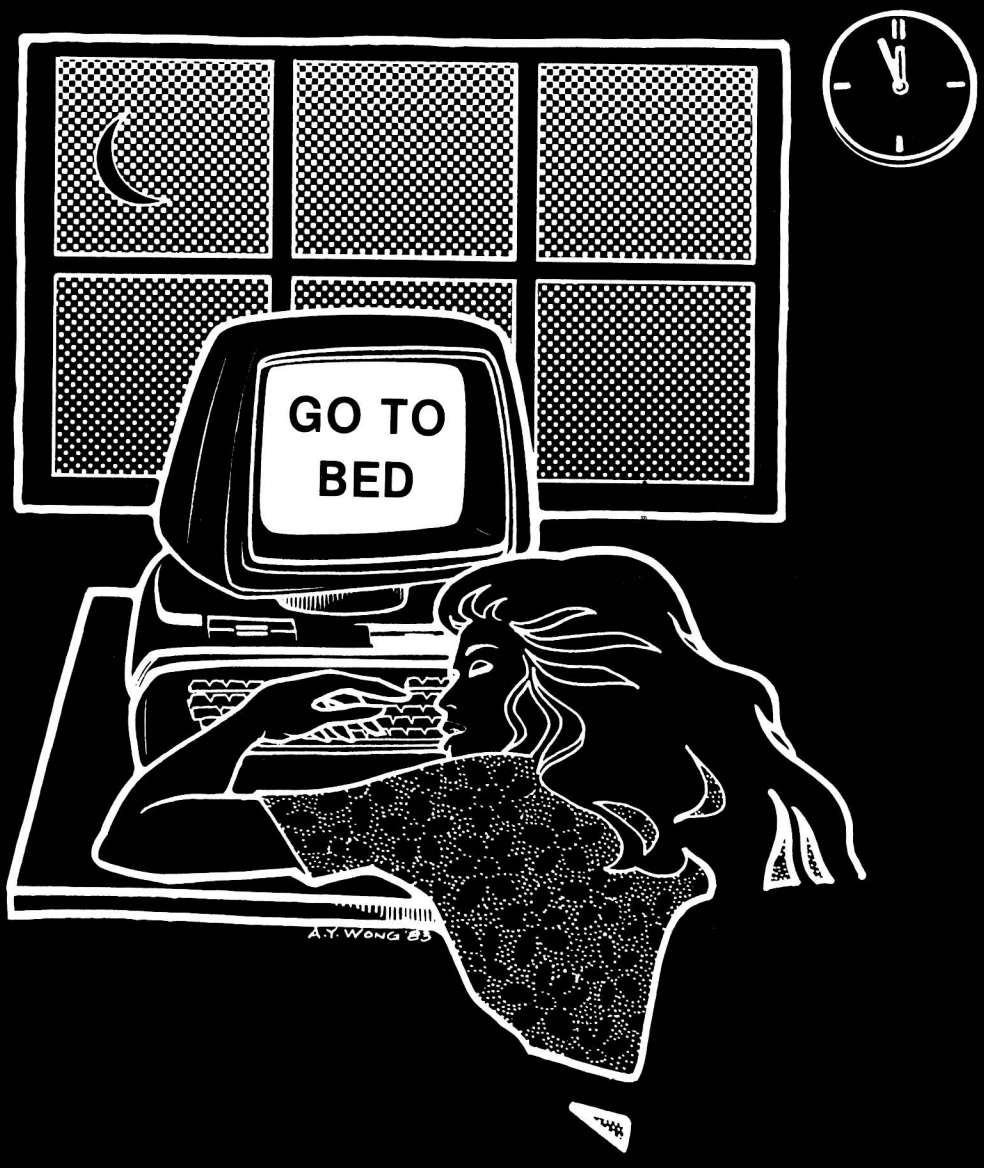
1986

Midnite Software Gazette

The First Independent U.S. Magazine for users of Commodore brand computers.

Includes The PAPER



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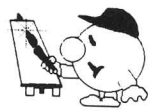

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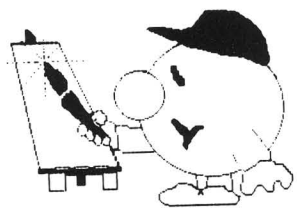

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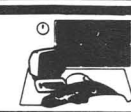


The Consumer Electronics Show at McCormick Place in Chicago claimed about 94,000 attendees, down from the January show. The personal computer exhibits were displaced from the main floor by video tapes and machines, and got placed down McCormick West's lower level.

Between the two biggies, Atari and Commodore, Atari looked far more impressive. Commodore had a room up in the mezzanine, and few companies displaying their wares; Atari had a HUGE booth. Atari showed everything from the 2600 to the ST line. They had no fewer than 30 software companies displaying everything from games to graphics to serious applications. The Atari booth was VERY crowded. If I weren't such a dyed in the dark blue Commodore supporter....

Commodore displayed their new hardware, the 64C, 1802 color monitor, and 1541C disk drive. The 64C and 1541C are repackaged versions of their namesakes. The 64C has the same color and feel as the C-128, but is shorter in length and width. I was disappointed that Commodore didn't incorporate the keypad which I so like on my C-128. Both the 64C and 1541C are completely compatible with the old 64 and 1541.

Commodore's big news was the GEOS operating system from Berkley Softworks. After getting a production version, I have mixed feelings about it. For a rookie, it serves it's purpose. For those who've gone beyond that point, it may be a bit cumbersome. Next issue we'll review it. Play with it at your friendly neighborhood Commodore store before forking out the $59.95. The Commodore 64C will come bundled with GEOS master disk and work disk (a very good idea!), Quantum Link terminal software, and educational software from MECC. It's very good marketing to bundle a few useful programs with this new system.

Quantum Link displayed a remarkable new venture with Lucasfilm, called the Habitat. To quote the press release "...the first network-based, graphics-oriented multi-player "world simulation." Quoting Steve Arnold, General Manager of Lucasfilm Games "Habitat is a world simulation that changes and evolves as players communicate and interact with each other. It includes all the social elements...[and] we've added animation, sounds and a world of situations for people to explore." Mark my words, this opens up a whole new experience in telecommunications. The closest analogy would be a world-wide 'computer people' on-line.

The major players in Commodore software were manning booths of their own. EPYX, Broderbund, SEGA, Datasoft, Bantam, Spinnaker, Timeworks, Artworx, Walt Disney Software, Accolade, Access, Data East, Batteries Included (you had to look to see Commodore material), Firebird and others. The majority of software was sports simulations or interactive fiction.

10th Frame from Access, and Commando, Ring King, and TAG TEAM WRESTLING from Data East excited me. Artworx showed Beach Blanket Volleyball and Peggammon, and Broderbund had two programs that will be BIG hits: Science Toolkit and The Toy Shop. The Toy Shop has templates to print out various toys on your printer. The package includes dole pins, string, balloons, etc., to build these creations. From airplanes to cars to steam engines to carousels, most can be animated in some way. The possibilities are exciting.

Progressive Peripherals and Software displayed their new 'Device One' printer interface. A VERY good item, it includes multiple fonts, hi-resolution screen dumps, banners, calendars and related features - all in ROM. Timeworks was again showing their Partner 128 - a HANDY cartridge, it includes: Appointment Calendar and Date Book, memo pad, phone list and auto dialer, calculator, label maker, and misc. related items.

All in all a good show. Commodore computers continue to be THE computer for new software and hardware developments of the near future. Over 6 million computer owners can't be ALL wrong!. JO.

Midnite Meanderings

I have been asked, on occasion, what equipment Tim and I use at Midnite. To say the least, you can really hear the machinery when we 'flame on.' Listed below is the cast of supporting characters involved here with the making of the Midnite.

Starting with the oldest, we have the 40 column PET 2001 with a PEDISK, Datasette, Hal Labs Hi-Res board, and CB2 sound system. Yes, I use it - to test Baker's articles.

Next is the CBM 8032, a tank that is still cranking along, usually with PET Wordpro files. Like an old pair of slippers.

Commodore 64 - three of 'em. I personally can keep two busy at once.

Commodore 128 - three again. Tim's main machine (one is at his home). I need mine to review HIM.

SX-64, when needed in those lonely crannies of life.

Amiga, with 512K and two 3 1/2" drives. A good machine that STILL needs software. Issue #31 cover came from this machine.

Commodore PC-10 (yes, the IBM clone) with 640K RAM and a 10 Meg. hard drive. Used to lose subscribers and for the BEST football game, NFL Challenge. A must for MS-DOS football fans.

Supporting actors include:

4040 dual floppy, a VERY handy device,

8250 two Meg dual floppy, a monsto storage device for dedicated CBMers.

MSD SD-2 dual floppy, same as the 4040.

1541, two of 'em. We're gluttons for punishment.

1571, three. Tim HAS to have two - CP/M you know.

Dynax DX 15 daisywheel, whence comes this text. Like me, slow but reliable.

Legend 1080A, one of my favorite dot matrix printers.

Royal typewriter/printer with a Centronics port, for occasional use.

Xetec Supergraphix printer interfaces. My favorite.

Cardco Super G, on occasion. Usually for reference.

Handic SuperBox C64 IEEE interface - a workhorse that never needs attending.

CBM printers include:

MPS 803 for VERY rough drafts (boo!).

DPS 1101, Tim's daisywheel alternative.

8023 P, my drafting printer. Fast, noisy, and as solid as a rock.

We do alot of telecommunicating, so we have:

Two 1670s. Once you go 1200 baud it's real hard to go back.

A 1660 that we got free for buying a C128.

A 1650. What can be said?

Various 1650 compatibles such as the MasterModem and the Total Telecom 64Modem.

VICmodem 1600 paperweight.

QMI 1200 baud standard RS 232 modem from Progressive Peripherals, rarely used.

Not shown, but sparingly used are a VIC 20 and a couple more old PETS. B128s were briefly used in days gone by, as well as a rock solid ProWriter printer.

It would take a full issue to describe all the software we use, but we are able to translate, transfer, dump, merge, push, and pull any material we get on magnetic media. We do refuse information on edibles and paper tape (both are slow and messy). But our primary software right now includes many versions of WordPro, Profile (getting to be a bad habit), The Manager (8032) for old subscriber lists, Paperback Writer 64 and 128, Paperclip on occasion, ProTerm, Bob's Term, NezTerm, et. al., and untold public domain utilities.

In the article section you will find a few handy programs. I guess this issue of the PAPER Article focuses on SEQ files. There's a mess of 'em, we hope useful.

I **NEVER** want to produe a disposable magazine. not that I want a legacy (I have three boys that'll do fine) but if you read us and then want to toss us...well...toss it to a friend, and HE could give it to a friend, and HE....

Some have said that the Midnite takes itself to seriously. Sometimes we do. But for now, look at the inside back cover, and for your own sake, smile.

It is in the teaching of thinking skills - reasoning, analysis, and problem solving techniques - that microcomputers in the schools are making their greatest contributions today. I highly recommend the following programs as among the best of the many available.

SUPER FACTORY: $59 educational game for two players. From Sunburst. Teacher's guide and backup included.

Sunburst consistently produces the best programs to teach thinking skills. The Factory, which has been on the market for several years, is still one of the best. Now they have come out with Super Factory. I thought that this program would be closely related to its predecessor, but it is totally different. It consists of cubes that students design by selecting pictures for each of the six sides. Each cube must then be exactly reproduced by a second student in the fewest possible moves. The learning objectives are to develop visual reasoning and thinking in three dimensions and to teach analytical skills, especially sequencing. There are three parts: The research stage that prepares students for designing cubes; the design stage in which students work with a blueprint; and the challenge stage in which students use four basic problem solving steps - analyzing, planning, trying, and checking. It is listed for grades 6 to adult. It comes with a sturdy three-ring notebook as a teacher's guide and a backup disk. In my grade book, it gets an A-. [Highly Recommended].

CODE QUEST: $59 educational game from Sunburst. Teacher's guide and backup included.

In this program, the computer selects a mystery object and then presents coded clues to be unraveled by the student. The menu offers a choice of six different codes from simple to complex. One uses pictures to represent letters; in another, the clue is written backwards with mis-spacing. Students must apply strategies of pattern identification, analysis, classification, and sequencing. Particularly useful is the change option that allows teachers to enter their own mystery objects and clues. The possibilities then become endless, such as peoples' names, places, computer terms, science terms, etc. It is listed for grades 4 to adult, but gifted students would enjoy it as early as third grade. Of these three problem solving programs, it may be the most popular among young students because of the many colorful pictures. I give it an A [Highly Recommended].

MEMORY CASTLE: $59 educational game. From Sunburst. With Manual.

Another excellent program from Sunburst, Memory Castle provides practice in remembering directions, sequencing, predicting, estimating, projecting, and other skills. Students must go through the rooms of the castle collecting an item from each. Levels of difficulty range from 4th grade to adult. The color grpahics are superb. The teacher's guide includes 69 pages of teaching aids and related activities. It, too, deserves an A. [Highly Recommended].

These are only a few of the many thinking skill programs from Sunburst. Every elementary and junior high school should be using them. If your child's school is not, send for their catalog and either buy one or two for home use, or suggest them to your child's principal. Elizabeth A. Kaspar.

DREAM HOUSE: $39.95 educational creative play program on disk for the C64. By J. Hakansson and Assoc. From CBS Software. Joystick optional. DOS protected. 90 day media warranty.

Dream House is a creative play program; not a game. The program helps children release their creativity while flexing their planning skills and their visual and spatial conception. Instead of playing a competitive game, users of Dream House explore and remodel houses.

The user first looks at the floor plans of four different houses. From these, the user chooses which he would like to work on and whether he would rather landscape the grounds or remodel the interior.

The views of the houses are impressive, the detail perfect. For instance, the exterior view of the farmhouse includes two outbuildings and a windmill which turns when the wind blows.

The program is driven by icons which control the Storage Van, where birdbaths, fences, and fountains are stored; the Workshop, where you can use the items from the van to construct new items; Animate, which brings objects to life, making fish swim and the wind blow; and Select, which is similar to Animate but offers finer control.

Now, suppose you decide you don't like the color of the house or the birdbath? Changing the color is as easy as picking up a paintbrush. When the paintbrush is selected, the lower screen will display a 16 color palette. To change the color of the paintbrush, just move it to the color you want and press the firebutton. Then move to the object you want to paint and press the firebutton again. If you decide you liked the original color, just press the firebutton again.

Dream House allows the user to easily copy, move, and erase objects without spoiling the background display. This means making a mistake or changing your mind about where the sofa should be is no problem. The storage van carries enough furnishings to stuff even the largest house, and enough adults, children, and pets to populate the entire neighborhood.

The most attractive feature of Dream House is the ability to animate objects. The program will make the goldfish look like it's really swimming in its bowl while the cat wiggles its tail, the windmill turns, the water sprays from the fountain and characters talk.

In the simplest terms, Dream House is four beautiful electronic dollhouses stored inside a floppy disk.

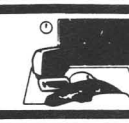
Dream House puts to good use the graphics of the Commodore 64 while challenging children to be creative. While Dream House will never replace the fun of playing with a real dollhouse, it is a good, fun-filled, creative extension to that activity. Recommended. Gary V. Fields

Books

COMMODORE 64 DATAFILE PROGRAMMING: $14.95 book by Glenn Fisher, Leroy Finkel, and Jerald R. Brown. From John Wiley & Sons.

This book, written for high school and college students, distinguishes itself from general interest books and reference manuals by appropriately stating that it is a self-teaching guide. It covers a review of BASIC statements, cassette tape data files, sequential data files, and relative data files by presenting concepts in frames which require your participation in practical applications, and then quiz you to ensure an understanding of the current material before proceeding to the next frame.

The book contains many useful programs such as "Blackbuk," an address book with a provision for notes, and subroutines which the programmer can use over and over again. The authors recommend typing in the programs for maximum benefit, but have a program disk available for an additional $24.95.



Data File Programming's only drawback may be that its title sells itself short. The title seems to indicate that this book pertains only to the C64, but the authors use language features common to most versions of BASIC and have included appendices for other versions of Commodore BASIC. Highly Recommended. Terry Fowler.

THE COMMODORE 128 MODE: An Inside View: $14.95 book by Isaac Malitz and Linda Edwards. From Microcomscribe. 230 pp.

This book is just as relevant for the C64 as it is for the C128 - most of the programs are written in BASIC 2.0. Some inside view. Eleven pages of the sound chapter have you PEEKING and POKING in BASIC 2.0; only three pages deal with sound from BASIC 7.0. A full chapter of eleven pages is given to BASIC 7.0 graphic commands. WOW! In spite of this, the "SNOOP" program might help a beginner get an idea of how the computer works with addresses, pointers, and the like. I learned some from the book - it is a decent introduction. Maybe worth $10, but I doubt it. Average. Tim.

CP/M USER'S GUIDE: $19.95 book by Jorg Schieb and Elmar A. Weiler. From Data Becker, published by Abacus. 300 pp.

This book is split between a tutorial on how to use the operating system and a technical reference on the Z80 ROMs. The first half is good. I could understand it. It is the first CP/M+ manual that has managed to make things clear enough to be useful on things such as file attributes and using SUBMIT.COM. It does have some errors, like saying that the logo key, <C=>, does exactly the same thing as the <SHIFTLOCK> key. But I learned alot from this book, and quickly. Right now I am only a user, not a programmer, of CP/M, so I the technical side of the book was greek to me and I cannot comment on it. But the first part was very helpful. Recommended. Tim

CP/M REVEALED: $17.95 book by Jack C. Dennon. From Hayden Books. 179 pages.

This is an odd one. The Preface starts out, "We set out in this book on the assumptions that the reader may have no prior computer experience but does have access to an 'up and running' CP/M system." By page 20, the author has the reader entering assembly language code using ED.COM. Aside from the fact that the author doesn't even mention CP/M 3.0 - he had probably never heard of it back in 1982 when this book was published - the book has no viable focus. It is meant as a book for beginners, but it is difficult to explain an operating system and assembly language to a rank novice in under three hundred pages. I have read this book, I have worked with it, and it did not do me a bit of good. I have a feeling that if I sat down with this and three other books on CP/M 2.2, I **might** be able to make sense of it all. But for user's of CP/M 3.0 on the C128, don't bother. Not Recommended.
[I really feel that I must qualify my conclusion on this product. The content and the approach closely parallels that taken by Jim Butterfield in his **Machine Language for the C64...**; I recommend Butterfield's book. Why this disparity, then? Well, part of it is personal bias - not so much toward Butterfied as toward Commodore machines. And Mr. Butterfield does not presume to teach you everything, but rather assumes that you have some working knowledge of programming and of the system. He wrote it for beginning machine language programmers, while this one is, supposedly, written for new computer users. Quite a difference. I again point out that the book is for CP/M 2.2 and so, at very best, would be Average for users of CP/M 3.0 on the C128.] Tim

GETTING STARTED WITH CP/M: $18.95 book by Rob Patten and Paul Calandrino. From Hayden. 97 pages, plus reference card.

This is directed toward users of CP/M 80 2.2 and, as such, is an excellent

introduction. The explanation of CP/M's basic commands is clear and the style is well suited to a beginner. But, being for CP/M 2.2, it is not wholly applicable to CP/M 3.0 on the C128. Unless you want a reference for CP/M 2.2, you are better off with other books. Average. Tim

The ESSENTIAL C128 USER'S GUIDE: $12.95 by Jerry Willis with Bill Brewer. From HP books. 200 pp.

I really can't tell what makes this book essential. It does give an overview of just about all the C128's modes and a general idea of the kind of software that is available. But it seems the author knows alot more about MS DOS machines than 65xx ROM based machines and is trying to export his reputation out of his area of expertise.

On page 12, he gives instructions for building a 80 column monochrome cable, on page 19 he shows how to plug the computer in, page 23 states that "most Commodore compatible printers are preset to Device #5, the standard number for printers," and on page 58 he recommends the Commodore 1660, mentions the 1670, and comments on the Volksmodem 6420 and the Mighty Mo. The 1650 modem is not mentioned. He talks alot about Xmodem; he mentions Punter protocol once.

This book is not essential. I can hardly even tell what makes it useful. It does not have enough information to serve as a reference and the information on products available discovers the authors ignorance of the Commodore market. I think that this kind of book might concievably be useful to a first time computer user, but this particular book does not give an accurate view of the machine or the market. HP Publishing and the author are just trying to cash in on a good thing. Not Recommended. Tim

C64 BASIC for BEGINNERS: $12.95 book by Carl Shipman. From HP Books. 335 pp, index.

This is a good, accurate introduction to BASIC 2.0. While it is like so many others, it is easy to read. Particularly commendable are such little comments is found on page 103, where it notes that different versions of the C64 may or may not need a poke to color memory when you poke a character to screen memory. Such thoroughness is a nice touch. Recommended. Tim.

35 AMAZING GAMES FOR THE C128: $9.95 paperback book by John Mihalik. From HP books.

This book contains program listings and instructions for 35 programs written in BASIC 7.0 specifically for the Commodore 128. The games include educational, board, and arcade type games that feature color, sound, music, and graphics. Throughout the book there are suggestions for programming variations so you can customize the games if desired.

The listings vary in size from two to five pages in length, but are clearly printed and easy to enter. Special notations are used for graphics, cursor controls, and other special keys to help make it easier to enter the programs. These are all clearly described at the front of the book. Along with the programming variation hints, there are also comments that help explain anything in the program that may not be clear - like the number of spaces or special keys, etc.

The games are simple, nothing extremely fancy, but still challenging and entertaining. Not quite up to par with commercial programs you would buy on disk, but slightly better than most public domain programs. Especially valuable for anyone wanting simple programming examples to learn and understand BASIC.

Well worth the price if you don't mind typing. If you're not excited about typing in 35 programs, you can order them all on

one disk for $30. However, this seems a bit high compared to the cost of public domain disks with similar quantity and quality of programs available from user's groups. Recommended. Robert W. Baker.

Game

NINE PRINCES IN AMBER: $29.95 Text/Graphic Adventure for C64 from Telarium.

Amber is "a perfect world of which all others are imperfect shadows." At least that's the way Roger Zelazny describes it in his best-selling SF series about that realm. Unfortunately, the other members of your family are not quite so perfect. They ALL want the throne which, of course, is rightfully yours. Eight brothers and three sisters all want the crown and they will do ANYTHING to keep you from getting it.

You wake up in a hospital room with amnesia and some serious (?) injuries. You will have to regain your memory, figure out which siblings are your enemies and which will cooperate with you. One way to make your task a little easier is to traverse "The Pattern." If you successfully put together the pieces of the puzzle, you'll regain some or all of your memory; if you fail, you're on your own!

Rather than just searching for treasure, this game relies HEAVILY on strategy. It boasts 40,000 different game variations and **40 different endings!** You must decide at each meeting whether you are going to form an alliance with or battle another character. Each decision alters the course of the game and the ultimate outcome. There are several ways in which you can defeat the others and win the throne, but in only ONE scenario will you be able to keep it!

Telarium's parser has undergone vast improvements in the past two years. Unlike earlier games, the text is smooth and intelligent and the parser reacts quickly to commands. After the first few encounters, you will get the feeling that the characters in the story are carefully watching what you do and having secret meetings inside your computer to decide on their strategy for the next move. This game will REALLY get you involved!

There are battle scenarios which you must get through...but they are not the infamous arcade sequences that peppered Telarium's early efforts. The duals are done completely in text, and you'd BETTER read the manual on how to conduct yourself...the wrong move will be fatal. You'll come out of this game with a small understanding of the fine points of swordsmanship. Quick reflexes on a joystick will not help you here.

"The Pattern" is about as close to an arcade game as you'll find. But this, too, depends on logic, not reflexes. You must arrange pieces of a path to intersect five stars scattered around the screen. Each move will bring back a piece of Corwin's memory, and each star successfully crossed will allow you to recall one of your Powers (which you will need if you are to succeed).

Telarium has come a LONG way since the days of "Dragonriders" and "Rendezvous." Unlike those early efforts at adventure games, I have no difficulty at all in Recommending this to any adventurer! -Art Lewis Kimball

MONTY PLAYS SCRABBLE: [update #23, p62.] $24.95 game on disk for the C64. From Epyx. For 1 to 3 players, DOS protected, 90 day media warranty.

This is the computerized version of the board game of Scrabble. The rules are exactly the same; the difference is that you have at least one computer opponent and you are given many extra features.

The game begins with credits given to the trademark and copyright holders. This and the load time consume almost three minutes. The game can be used with a black and white or a color monitor and does not require the actual game board.

You are given the option to turn off the sound - which helps speed the play but the cues can be helpful in letting you know when Monty has finished his turn. You can also choose the speed at which the computer will place words on the screen. The top speed is so fast that you will not be able to follow.

Once begun, the screen displays a full SCRABBLE game board, the player's scores, the racks (optional), and the list of commands. The computer can play at four different levels. Start at level one and advance as you see fit. I recommend that you don't play at level four unless you can stand losing almost every game.

If you are playing against the computer alone, you can swap racks during play. Another interesting feature is the ability to change individual tiles from your rack - helpful when your letter combinations become impossible. There is also an option to get help from the computer.

Just watching Monty play can be educational since the game includes a 12,000 word reference. You may also choose, at the start of the game, to see all the racks and to watch Monty think.

There is no testing for validity of your words, but the computer does check for illegal placement. The program will tally and display the scores for all players.

Overall, Monty Plays Scrabble is a very good learning tool and provides an excellent challenge. Highly Recommended. Dan Smith.

COLOSSUS CHESS IV: $34.95 chess program on disk [and tape?] for the C64. By Martin Bryant, from Firebird. 90 day media warranty.

Advertised as the "best chess playing program, for home computers," it may well be. Plenty of options and features for playing and replaying games, watching the clock, examining positions, etc. Two- and three- dimensional displays, with moves by algebraic notation, cursor keys, or joystick. Six modes of play, plus control over the computer's use of time and opening library. This program detects automatic stalemates such as King & Bishop versus King, etc., and allows for under-promotion of pawns. It works, and it works well. I do enjoy Sargon III, and will not give it up, but this looks like it may be a better program. It claims to beat Sargon III about two-thirds of the time.

The only thing I wonder about is the statement that the 19 page manual might be overwhelming. Hardly. Sargon's 79 pp. manual is much more informative, and neither is more than adequately written. Highly Recommended. Tim

PHANTASIE: $39.95 role playing adventure game on disk for the C64 by Winston Douglas Woods. From Strategic Simulations. Joystick and printer optional. DOS protected. 30 day media warranty, $10 replacement thereafter.

Phantasie is a challenging role-playing game similar in style to the popular Dungeons & Dragons [tm TSR Games] which lets you explore the mysteries, treasures and terrors of an ancient land known as "The Isle of Gelnor." Although your short term goals are fame, adventure, and treasures, your ultimate quest is the overthrow of the evil sorcerer Nikademus. Before you can destroy him, you must find and defeat his Black Knights. Before you can do that you must gather, train, and equip a company of adventurers.

Your company may include a maximum of six members of various classes and various races. There is plenty to explore in Gelnor, including strange pools, dungeons, temples, different towns, inns, mountains, forests, etc. Each holds a new adventure, challenge, danger, and (perhaps) reward.

Although it is challenging, Phantasie isn't so tough that a novice would be killed every time out. The ability to select and train characters causes a strange personal bond to develop between you and your characters.

Phantasie's one shortcoming is (lack

of) speed. The game relies heavily on disk access for information and graphics of the numerous areas, but lovers of adventure will still be delighted with Phantasie because there are so many mysteries to solve, battles to win, treasures to sieze, magic to endure, spells to cast and miles of territory to explore. Those challenges make the short waits bearable.

My major objection is the manual. Although it is well written, it is for the Apple version of Phantasie. Rather than print a complete Commodore version, SSI simply inserted a four page supplemental rule book. This means you must first learn the Apple rules and then study the supplement and make changes where appropriate. A buyer who forks over forty bucks for a single game should not have to write his own manual. Recommended. Gary V. Fields.

PAPERBACK WRITER 128: $49.95 wordprocessor on disk for the C128 [$39.95 for the C64 version]. From Digital Solutions. DOS protected. Limited warranty. Backup available for $13 (US, including shipping and handling.)

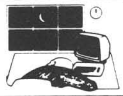
After trying out three other word-processors for the C128, I concluded that this is the best by far. It offers one of the newest options for CBM machines, WYSIWYG, which until recently was available only in $400+ wordprocessors for MS-DOS type machines. "WYSIWYG" stands "What You See Is What You Get," meaning that centered text will be centered on the screen, underlined text is underlined, margins and indentations show. No more guessing what your final paper will look like! Terrrific! In addition, most common commands are listed at the top of the screen, and pressing the HELP key provides even more. I was able to type a whole paper without referring to the manual once...THAT is user friendly! The manual is well written, making it easy to look up advanced options. Only one small criticism: Under "printing," the manual does not make it clear the the simple print command starts where the cursor is; not necessarily at the top of the document. Because this is different from most other CBM wordprocessors, it was a little confusing. This option, however, does allow for easy printing of portions of text. Two other great options offer hyphenation and foreign characters.

This wordprocessor is a bargain since it [the 128 version] includes programs for both the C64 and the C128. A spelling checker is included, but it must be run in C64 mode. I waited to buy a C128 wordprocessor until a good one came out, and I am glad I did. PaperBack Writer was worth the wait. Highly Recommended. Elizabeth A. Kaspar.

PAPERBACK WRITER 128: (Vers. 1.20) as above.

This program is good. All standard, and many non-standard, features are supported, including: wordrap; standard cursor controls, plus cursor by word and by page, on screen text enhancement; full block functions including sorting, decimal alignment, column addition; centering, justification, and right alignment; search and replace; complete and selective passive directories; dynamic entry from directories; file linking; 64K workspace which can be split into two independent 32K workspaces with block moves between the two; relatively easy modification of printer files; and complete support of several file protocols including PRG, sequential PETSCII, and sequential ASCII.

No printer control codes show up on screen to mess up the appearance of the formatted text unless you do something really strange and define a special character. With the control over the printer files this should not be necessary. The full C128 version can be used only on the an 80 column monitor, 80 characters



across the screen, but with horizontal scrolling you can apparently get an unlimited number of columns. The everpresent status line and menu occupy the top 8 lines of the screen, which can get annoying. I would like to be able to use the extra lines for visible text. Also, the default colors are pretty bad; there is no way save a default color file. Colors are easily changed by using the <CTRL> and function keys.

Formatting is done in a separate area accessed by the <F5> or <ESC>. Here you can set margins, paging, pitches, headers, footers, and the like. When typing at the end of the text, the text follows the format quite closely. When inserting text prior to any but the last carriage return the text will continue on the same line, automatically reformatting the text on a <RETURN>, <SHIFT><RETURN>, or any <CRSR>. Formatting can be changed at any paragraph by simply going back over to the format control area. Changes are flagged by a check mark in the upper right hand corner of the screen when the cursor is in a paragraph where the format has been changed.

There are no decimal tabs as such. Rather, you can define a block range and align the decimals with another command, then perform addition and subtraction on that range. You can also sort a block range (alpha then numeric), and, especially nice, choose which column will be compared first in the sort. Thus, if you have a multi-column list, e.g. Name Address City, you could sort the whole list by Name, Address, or City. Pretty nice.

A very nice feature is Paperback Writer's ability to handle different file types. It normally uses PRG files, but will directly load or save any PETSCII or ASCII sequential file. No less impressive is its ability to directly load files from selected other wordprocessors--and use the other wordprocessors format comands!

The C128 version comes with a 40 column version basically identical with the C64 40 column version while the C64 version offers both 40 and 80 column C64 versions. The main reason the 40 column C64 version is included on the C128 version is for the spelling checker which works only in C64 mode. The spelling checker itself is nice and can handle a dictionary of up to 40,000 words; but it does not come with a dictionary. Digital Solutions offers a 32,000 word dictionary for $14.95. It would be nice to have a spelling checker that worked in C128 FAST mode, but the one offered is adequate.

64K is available for a single document in the C128 version (14K in the C64 version), or you can split it into two 32K banks. The program defaults to a single 64K bank. A nice touch: If you have split the work area into 32K blocks, and then go to make it 64K again, it asks if you want to save the text in the other work area first. Block moves between the two areas can get a little bit tricky.

Merging of Maillists is supported only from a disk file. It would be nice if this would work from the alternate text area as well, but so what. The merge function is a little bit clumsy: You must have exactly as many variables in the target text as you do in the file you are merging data from. It does offer an option to eliminate trailing spaces from each of the individual fields, which is nice, but it, too, can get messy.

Wedge commands are available for formatting, copying, scratching, and other disk functions. Complete passive directories are supported. The C64 version works well with parallel IEEE interfaced drives using Handic's Superbox, but we don't have an interface for the C128 to try that yet. Using two devices can be a hassle. Paperback Writer is set up to support dual disk drives very conveniently, but it defaults to device 8. To access device 9, you need to '<CTRL> <SHIFT> D', enter '9,' and go back to text, then to DOS support. To go back to device 8 you have to go through the same procedure.

Printer support is not as broad as it might be. Only 15 printer types (some, e.g. 1525 and 803, are lumped) are directly supported. If your printer is not supported you must modify either the generic ASCII

printer file or the one that most closely matches your printer. Though not particularly easy, this is easier than modifying printer driver files for most other programs. I tried to define my CBM DPS 1101 daisy wheel as device number five in the driver file, but had to go through a device change as with changing disk drives, above.

The output options are powerful, but not perfect. I don't like the way it handles line allocation for headers, but footers are not so bad. If you do have footers, be careful - they may not print if you do not force the end of the page. If you do force the end of a page and have headers or a top border set, that will print even if no text follows it. Not good. There is no support for double columns. There are no provisions for automatic double sided output such as margin offsets or print odd/even pages. Output to disk is supported. RS232 printers are supposed to be supported, although we did not try it. We have not been able to get a CBM 8023P to work reliably via the Handic SuperBox IEEE interface.

French characters are available by using <CTRL> and the number keys. The values of these keys can be altered in the printer file, so it can be easy to use your printer's custom characters. By the by - an all French version of Paperback Writer is also available.

I like it. It is powerful, extremely easy to use, has the advantage of on screen formatting, and handles just about any file that comes my way. It is lacking in some features, such as the multiple column output and failing to make using two drives easier. There are no easy range delete commands, such as delete by word, sentence, or paragraph. The promise of Paperback Filer should make this more attractive, once they get a version that works well. Also, Paperback Planner, a spreadsheet program, is now available. I have not worked much with that program, but you are supposed to be able to merge the graphs from Planner into Writer when printing. We will have information on that next month.

The price is excellent, the product is good, and it works. The DOS protection is particularly heavy. At this point, there is no archive program that can duplicate a Paperback Writer program disk and the disks are on the touchy side - Two days before we went to press my copy of Paperback Writer 128, for no apparent reason, failed to load. Consider this when choosing wordprocessors and consider the cost of a backup in the price. Highly Recommended. Tim

FONTMASTER II: $29.95 multiple font word-processing program on disk for the C64. From Xetec, Inc. Backup included. 90 day limited warranty. Dot addressable graphics printer required.

Fontmaster II offers many improvements over the original and it is a delightful wordprocessor to use - so user friendly that it took no more than five minutes to get going. Its commands are logical and there is a helpful reference card. This revision has 33 fonts, more than I shall ever use since I know no Greek, Russian, or Hebrew. But 3 or 4 - such as Bauhaus, Script, and Block - I use frequently. I can design my own fonts as well.

In addition to the standard features, it offers many of the newest. It will type up to four columns, offers optional hyphenation and tabs by column number. If your printer allows, fonts can be expanded, reversed, proportional, underlined, double tall or micro height, super- or subscripted, use numerous pitches, and the usual compressed and boldfaced. Pages can be numbered several ways, including with Roman numerals. Thanks to a translator, it can be used with either program or sequential files from other wordprocessors. The manual is well written and easy to understand. I had only a few questions for which I could not find answers. Only one feature was missing (which I have yet to see in any wordprocessor): a clear, block print enlargement beyond the usual expanded size, but smaller than PrintShop, so I can make readable overhead transparencies. It

gets an A from this professor. [Highly Recommended.] Elizabeth A. Kaspar.

WORDFILE 128: $24.95 wordprocessing program on disk for the C128. By Mark Jordan, from Michaelsoft. Disclaimer of warranty. 10 day replacement, $8 update. Unprotected.

This one does not promise much - outside of compatibility with dfile 128, by Mike Konshack - and it does not deliver what it promises. Formatting commands do not format correctly. Special printer features must be accessed by imbedding a flag and the CHR$() value for each element of the code for the printer - and that doesn't work right either. Such codes are necessarily printer specific. Heaven forbid you should want to use two different printers or send a formatted file to a friend! The program does offer very good cursor control. Not Recommended. Tim

Hardware

CBM MPS 1000: $299, 80 column, 120 cps dot matrix printer from Commodore. Commodore Serial and standard Centronics ports.

This is an 80 column dot matrix printer that can print four different fonts, including near-letter quality modes. The printer is extremely versatile, compact, relatively quiet, and easy to use. It offers a built-in Commodore serial interface as well as a standard Centronics parallel interface.

The MPS-1000 has two basic modes of operation: Commodore mode and IBM 5152+ mode. Both modes allow normal draft quality printing for speed, and a near letter quality (NLQ) printing for final drafts. The parallel interface can only be used for IBM mode while the serial interface can be used for either mode. This allows Commodore systems like the C128 and C64 to take advantage of both print modes via the serial peripherial bus interface.

It normally prints at 120 cps using a 9x9 (IBM) or 9x8 (CBM) dot matrix. In NLQ mode it prints at 20 cps and uses a 12x18 dot matrix. Standard graphic characters use a 6x12 (IBM) or 6x8 (CBM) dot matrix. Actual printing speeds in IBM mode vary depending on print size. In all modes, true decenders provide excellent print quality.

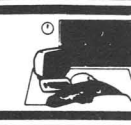
Printer options are selected via a dip switch on the rear of the printer. One switch selects whether Commodore or IBM print mode is desired. Other switches select the device number (4 or 5), draft or NLQ printing, cut sheet feeder controls, page length and page end detector. In Commodore mode, the remaining switches control the buzzer, and uni- or bidirectional printing. In IBM mode, the remaining switches control interface and graphic character set selection plus auto line feed control.

The printer handles friction feed of paper stock between 7.25 and 8.5 inches wide. A tractor feed is included with the printer and can handle forms from 4 to 10 inches wide. The ribbon is a standard cartridge that is especially easy to load.

The Commodore MPS-1000 is actually built from the standard Epson Homewriter 10 printer and uses the same ribbon, print head, etc. Service and replacement parts should be easy to obtain. Actually, the Commodore version is handier with the dual interfaces built in, and it usually sells for less than the Epson version. The Epson version requires an optional interface module and the tractor feed is extra.

In Commodore mode, the MPS-1000 provides all the normal features controlled by secondary addresses and control codes found in other Commodore printers. It supports the full CBM PETSCII character and graphics sets plus provides dot graphics capabilities in both single density (480 dots) and double density (960 dots) modes. Fortunately, it's completely program compatible with the MPS-801 printer, so most of the available Commodore C64/128 software can easily handle it.

In IBM mode, the printer provides the



normal 5152 mode plus IBM character and graphics sets 1 and 2. Standard IBM ESCape code printer controls are supported for varying and enhancing your printed output. Extended ESCape codes are used to transfer dot graphics data to the printer, since higher density graphics are available in IBM mode.

Documentation is excellent, clearly written, with helpful examples and sample programs. The manual is over 100 pages in length, with detailed tables, appendices and a full index. There's plenty of technical information for those that want or need it. This is one of the better Commodore manuals I've seen.

In my opinion, this is an ideal printer for any Commodore owner, especially for the C64 and C128. It also can be used with the Commodore Amiga, when used in IBM mode and connected with the special Amiga parallel printer cable. The IBM parallel printer cable SHOULD NOT be used with the Amiga, since there are supply voltages at the connector that could damage your printer and/or computer if connected wrong.

How can you go wrong? This printer can be used with almost any computer system, so there's no need to worry about outgrowing your system. So far it's worked with Printshop, Wordpro-64, and every other program I've tried it with. I was so impressed after getting one for my C64 and C128, that I got another for my Amiga when I needed a printer for that system.

Just one word of caution, you cannot have cables connected to both interfaces at the same time, only one or the other. Highly Recommended. Robert W. Baker.

MICROGRAPHIX MW 350: $130 CBM serial to Centronics interface with 10K buffer for V20 through C128. (4K buffer version available for $89.) By Kovacs/MicroFantics, from Micro R&D. 90 day limited warranty.

This solid graphics interface provides plenty of standard features and a couple of nice extras. Six DIP switches provide control over linefeed (1), transparent/1525 emulate (1), device number (1), and printer type (3). ESCape codes also allow software setting of device number, form length, margins, secondary address, linefeeds, throughput of ESCape codes to the printer, and conversion of CBM control codes to mnemonics (e.g., a <CLR/HOME> in quotes which shows up as a reversed heart on screen will print as [CLR] on paper). A reset switch empties the buffer and resets the interface to the switch settings. Holding the interface reset switch down for a few moments dumps a status report to the printer, showing the current settings of the interface. A small thing, but very nice to have, is a very wide range of control over linefeeds. This comes in especially helpful in CP/M mode on the C128. With other interfaces, I had trouble getting a good printout without extra linefeeds. I could easily get the MW 350 to strip the extras.

Micro R&D should be commended for other little features. The front label shows the switch settings in meaningful terms, the serial cable has an RF choke, and the Centronics plug is encased in medium guage metal as opposed to the standard plastic. The interface is designed to draw its power from a joystick port via a detachable cable. While I am not particularly fond of this arrangement, the detachable cable does allow the user to find another source.

Unless you really need the extra fonts or NLQ built into your interface, this one is Recommended. Tim

XETEC SUPERGRAPHIX: $100 CBM serial to Centronics interface with 8K buffer for V20 through C128.

This interface apparently lacks one feature: I alway end up with an extra linefeed when printing from CP/M on the C128. [I was finally able to do it by CONFIGing my printer as CBM, setting the interface to emulate, and shutting off the linefeed at the printer. More of a hassle than should be necessary.] Other than that,

it seems to have just about everything that the MW 350, above, has. 8K buffer - unless you are using the buffer to store one, or two, of the numerous fonts that come on the included disk. The eight DIP switches control: Font Selection (2 - none, NLQ, User Font 1, User Font 2); Mode (2 - 1525 Emulate, SuperGraphix, ASCII conversion, Transparent); Printer selection (3 - pretty comprehensive, including 132 column Epsons and Panasonics); and Device Number (1 - four or five). All of these can be controlled in software via the command channel as well.

With all the options, it can get more than just a little bit confusing - if you want to take advantage of it all. For standard use it works easily and well. The manual seems to cover everything, but it is somewhat cursory. It will take some work to muddle through it all. But for power and price, you can't beat it. Highly Recommended. Tim

CARDCO SUPER G: $90 CBM serial to Centronics interface with buffer for V20 through C128. Lifetime replacement guarantee.

This interface provides pretty comprehensive control over all printing functions, either through DIP switch settings or through software via a command channel to the interface. The eight DIP switches control: Graphics Character Set (1 - 6 or 8 bit wide graphics characters); Printer selection (3 - switches 2, 3, and 6); Device number (1 - four or five); Expanded mode CHR$ swap (1- swap CHR$(15) and CHR$(20); 1525 Emulatation (1 - on/off); and Linefeed (1 - auto on/off). The switches are on the back of the interface, the settings matrix on the front. There is no reset switch. To reset the interface, you have to either power down the computer or pull out the power cord from the cassette port. Linefeeds can also be controlled by secondary address, as can normal printing modes, hex mode, and transparent mode. These modes can be locked via secondary address as well.

Printer support is pretty good. The manual is fairly helpful.

One thing that worries me is that when I shake the interface box, something rattles. It works ok, there doesn't seem to be any problem with it - it is just rather disconcerting.

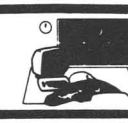
It is a nice, functional, graphics printer interface, but with no real added features. Don't let the free PlayNet offer induce you into buying this interface though, as it seems that that service may no longer be around. Unless you can get the Super G-Whiz at an excellent discount, it is only Average. Tim

Utilities

DISK SPEED CARTRIDGES

The following 3 disk utility cartridges were benchmarked on a system configured as follows: C128, (2x) 1571, Xetec SuperGraphix interface, and a Dynax DX 15 daisywheel printer. Not exactly standard for benchmarking C64/1541 utilities, but convenient. A couple of comments on the side: I also tested each of the cartridges on a C64 with a 1541, just to make sure that the speeds were comparable. I found that the C128/1571 (in C64/1541 modes, of course) combination was generally faster than the C64/1541 combination.

For the benchmark, I used MONOPOLE, the 99 block public domain program that has become the standard for Commodore machines. (It probably gets more use now as a benchmark than as a game.) For each benchmark, I reset the machine via a reset button and LOADed "MONOPOLE",8 twelve times. I threw out the high and the low times and averaged the rest. The same disk was used for all trials used to calculate the benchmark. The disk was formatted double-sided on a 1571 and had a MONOPOLE as the single file thereon.



Interestingly, I had tried a SAVE@ on another disk. It took MACH 5 and GT4 twice as long to load MONOPOLE from this disk as it did from the other.

Finally, I tried each of the cartridges on a 4040 dual disk drive using an Handic Superbox 64 interface. This because, while the primary focus of each of the cartridges is speed, each of them provide other utilities as well. With the 4040, I tried only to see if the cartridge was functional, disregarding speed. None worked.

For reference, the following configurations load MONOPOLE in the noted times (not tested as rigorously as the cartridges):

C128/1571: 68.8 seconds
(in C64/1541 modes).
C128/1571: 7.4 seconds.
C64/4040 : 14.7 seconds
(via Handic SuperBox).

FAST LOAD: $39.95 cartridge from Epyx.

Loads MONOPOLE in 12.5 seconds. Fast Load offers a standard DOS wedge, plus a number of additional utilities via "Disk Tools," accessed with the English Pound key. These utilities include a disk copy, a BAM copy, and a file copy; an elementary sector editor, and options to lock and unlock disk files. Also included is SMON, a machine language monitor that appears functional, although the syntax seems unusual. An aside: The entire Fast Load manual is printed in black and white on the inside of a folded 8 1/2" by 11" sheet; also included in the package are several pages of multicolor advertising for other Epyx programs and a disk which has demonstrations of many of them. I wonder where Epyx makes their money.

It is not my favorite. Average. Tim

MACH 5: $34.95 cartridge from Access [update: issue #24, p15, and #30, p24.]

Loads Monopole in 12.2 seconds. Offers a menu and standard and extended wedge commands. Extended wedge commands include variations of the standard commands, opening and closing the printer channel (OPEN 4,4:CMD 4...), an elementary screen dump, unNEW, fast format, and <CTRL> key autoboot on a C64. Features can be disabled with commands, and re-enabled with SYS commands.

An included disk offers BASIC +4K which gives C64 BASIC an additional 4096 bytes of free memory, and a disk cataloguing utility which runs in C64 mode.

When using the cartridge with a 1571, you cannot read and write to the second side of the drive unless the speed enhancements are disabled. My favorite, but GT4 has alot going for it. Recommended. Tim

GT4: $29.95 cartridge from ProLine.

Loads Monopole in 12.2 seconds; saves Monopole in about 14 seconds.

I did not detect any problems with save and replace. In addition to the fast load and save, GT4 offers a dialect of BASIC 4.0, differing mainly in disk status commands - namely, using DSTAT in place of 'PRINT DS$', and the ommission of COPY and CONCAT. It includes a relatively slow single drive/single device, dual drive/single device, single drive/two device, dual drive/two device BACKUP, which can come in quite handy.

It does not blank the screen during load or save, and it is as fast as the Mach 5. The fast save is nice. If you prefer a wedge with your cartridge, take Mach 5, but if you like BASIC 4, and the built-in BACKUP command, this one is Recommended. Tim

MACH 128: [update #30, p25.] $49.95 disk utility cartridge for the C128.

This is much like the Mach 5, above, and includes Mach 5 for the C64 when used on a C64 or a C128 in C64 mode. In C128 mode, however, it offers no acceleration of

disk functions, and not all the wedge commands work properly. Do NOT try to edit an unNEWed program in 128 mode! And, when in C64 mode, it does not let you get to the second side of a disk on a 1571. Until this is changed, it is really not worth anymore than Mach 5. Save your $10. Not recommended. Tim

VORPAL UTILITY KIT: $49.95 disk utility kit on disk for the C64 and 1541. From Epyx.

This utility accelerates disk loads by a special formatting technique. It works, with results nearly as fast as the cartridges. But getting it to work right is time consuming and cumbersome. The package also includes other assorted disk and disk file utilities for protecting and unprotecting files, showing start and end addresses, and an head alignment/speed check program which disagrees with the 1541 Physical Exam from Cardinal. It all seems to work ok, but I hardly feel that any of it is worth it. For disk speed, a cartridge is alot easier, although with Vorpaled files you don't need anything to load it fast. Of course, it does no good transferring files via a modem. Average. Tim

SUPER-KIT/1541: $29.95 Disk Copy/Utility by Marty Franz and Joe Peter. From Prism Software. DOS protected.

As long as software manufacturers continue to go to outlandish extremes to protect their software from copying, end users will be in the market for utilities that will allow them to make copies of the disks they legally own and have a right to archive. SUPER-KIT/1541 fills that need nicely with a few extras that you won't find in other copy programs.

The Dual Normal Copy program will duplicate any non-protected disk in about 40 seconds and will copy some simple errors (21, 22, and 29). The Single Normal Copy program doesn't reproduce any errors, but will backup an unprotected disk on one drive with only three swaps. Both "normal" copiers are considerably faster than others because they don't copy empty tracks.

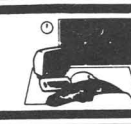
The Single and Dual Fast Nibble Copiers are also a bit faster than others currently available for the same reasons. You have control of starting and ending tracks, half-tracking, etc. These copiers proved quite effective when used on many lightly protected programs. The verify option on these nibblers checks all the data written to the copy, unlike most nibblers which check only the first few bytes of each sector.

Super Nibbler is a third, more powerful nibble program which is a bit slower than the previous nibblers, but still considerably faster than most other nibblers we've seen. This one will give you a carbon copy of a large majority of protected software. Again you have control of track parameters and can copy up through track 40. Super Nibbler worked reliably on most of the programs we tried.

Next comes Super Disk Surgeon. This is a parameter copier, but with a **big difference!** While most parameter copiers give you a "carbon copy" of your original disk, this one gives you a disk with the protection still there, but disabled so that in most cases you can copy the resulting disk with any normal copier. If this isn't enough to impress you, there are some 271 parameters for some of the toughest programs currently available on the market today! A warning is included that if your drive is slightly out of alignment, you may have to copy the original disk first and then use the Disk Surgeon on the copy. We found this to work remarkably well with a 1541 drive that was not up to par. Updates with new parameters will be provided to registered owners of SUPERKIT.

We were very impressed with the fact that the authors admit that one or two of the parameters may not be reliable. It's refreshing to see this when most copy programs boast that they'll copy ANYTHING!

The Sector Editor is a **very powerful**



utility which includes the ability to read and write data from the disk in Hex, Decimal or Text mode. There is also an ML monitor available through the editor, and a menu of disk "housekeeping" commands; scratch, validate, view directory and view and edit the BAM.

The GCR Editor is an added feature not to be found on any other copy utility we know of. Since this reviewer doesn't speak GCR, we can't vouch for its performance, but if it works as well as the rest of the utilities, it will be an invaluable tool to people who have been tutored by Dick Immers. If you're not completely familiar with GCR, better pretend this utility isn't even here!

Another handy utility is the Super Scan utility which offers two functions: Error Scan and Density Scan. The Error Scan takes about 25 seconds and gives a visual representation of the entire disk on the screen showing the location and type of any errors found. Our only complaint about this utility is that until you become very familiar with the program, you'll have to refer to the manual to interpret the symbols. It would have been handy to have the legend on the screen. The Density Scan takes less than 15 seconds and reports the density of all tracks visually on the screen. You can tell at a glance if a disk has normal density on every track. The Error Scan feature is really handy for checking your regular disks as well, since it's the fastest error checker we've seen yet.

Rounding out the package are a couple of other "goodies" including an Autoboot maker, Super DOS, and a very versatile File Copier.

The manual is well-written and includes a 26-page section on protection schemes which is quite educational. We would have preferred a little larger manual, and the print job leaves a little to be desired, but this is a minor irritation considering the value of the program. Oh yes, we almost forgot, there's music available for those who get bored while waiting for their disk to be copied.

A 1571 version is reportedly in the works, and those of us with MSD SD-2s are hoping a version for us will not be long in making an appearance.

Our only real criticism of the package is that one must reset the computer when going from one program to another. A means to go from one utility to another...or at least back to a main menu, would have been nice.

We have no qualms at all about saying this is about the best and most reliable copy utility on the market today. The professionalism with which it is done and the price make it Highly Recommended!
-Art Lewis Kimball

C-POWER 128: $59.95 C-Language Compiler for C128 by Brian Hilchie. From Pro-Line Software. Not Protected.

The C128 version of C-Power still does not implement bit fields (except through shifts and masks), or pointer initialization.

As with C-Power 64, a shell program is provided as an interpreter for the many other programs included with C-Power. Programs can be compiled to run under the shell or as seperate machine code. There is a syntax checking editor, a compiler, linker and print utility.

Added features of the 128 version include the ability to do basic-style peeks and pokes; and the "open2" command (which allows you to specify a drive number instead of a device number). Code is compiled directly to native 8502 code.

Another very desireable feature makes use of the C128's added memory, providing 191 blocks of internal RAM disk which can be used to speed things up considerably. RAM disks can be used to temporarily store work or you can even upload the compiler and translater into them which makes them instantly accessible. Or you can use the

RAM disk to store your work on, saving a lot of disk swaps if you have only one disk drive.

This version does not include the C Primer Plus, as the 64 release did, a definite loss for those who want to learn C. Recommended -Art Lewis Kimball

PROGRAMMER'S BASIC TOOLKIT: $29.95 extended BASIC on disk for the Commodore 64 from Epyx. 90 day media warranty. Unprotected. [Update: formerly Graphics BASIC, from HES. See review in issue #28, p8.]

Easy to use, fairly fast, nice features - This package offers alot. Over 110 com- mands for graphics, sound, and peripheral control are added to the standard C64 BASIC. The commands sound almost like real English! To dump a hi-res screen to the printer, simply COPY HIRES TO PRINTER. For programming graphics on the C64, it is excellent. Music is still a little bit difficult, but certainly not much more than sound in BASIC 7.0 on the C128.

Finally, you do not need this package to run programs created by it; a run-time module can be put on any disk of your choice.

It is something of a memory hog, leaving only about 13K for programs, not including special areas for sprites and the hi-res screen, but it is very easy to do alot with very little code, so memory should not be a big problem.

For extremely easy BASIC games programming, this Epyx package is Highly Recommended. Tim

MICROSOFT MULTIPLAN: $90 spreadsheet for the C64 from Epyx, by MicroSoft. [update #18, p13. Formerly from HES.] DOS protected. 180 day media warranty.

Multiplan is a spreadsheet program which has many uses for both the individual and the business.

Like most comparable programs, Multiplan has the ability to:
-copy or move data from one cell or group of cells to another;
-delete and insert rows and columns;
-edit text within a cell;
-format a cell, a group of cells, or the entire worksheet with a variety of parameters, e.g., $00.00, or 00%, etc.;
-load, save, and print spreadsheets.

Additional features include:
-sorting data alphabetically or numerically, ascending or descending;
-help screens available any time upon request;
-the ability to pull information from other saved spreadsheets;
-windowing and locking/unlocking cells; and
-turning off automatic recalculation to make entry faster.

Simple one key commands and a comprehensive, easy to read reference manual make this spreadsheet simple to use. It closely resembles the Lotus 123 software, sans graphics. Multiplan is a powerful modeling and planning tool. The more you use it the more you will find it can do. It has more features than you are likely to master. Recommended. Dan A. Sieben.

PAPERBACK FILER 128: $49.95 database management program on disk for the C128. From Digital Solutions.

Easy to use, fairly quick, and its sequential files are easy to merge with just about anything. Unfortunately, it [version number 1.00] is too buggy for serious use. I found that I could not add records to the file after I had done a physical sort - i.e., an actual re-ordering

of the file on disk without alot of hassle. Other bugs have been reported. Until these bugs are fixed, it is pretty useless. Not Recommended, yet. Tim

DFILE 128: $19.95 database management program on disk for the C128. By Michael Konshak, from Michaelsoft. Unprotected, no warranty, but any problems handled sincerely and individually.

Mike Konshack, who wrote "Datafile" for the C64, and has been published regularly in RUN, has come out with a very updated database program for the C128. It is a full featured program which was developed after listening to input from several thousand users of his earlier program. He has made maximum use of the C128 and compiled the program to speed up the various routines.

Both 40 and 80 column output are supported, with the FAST mode available in 80 column. The presentation is outstanding. The use of compiled BASIC 7.0 permits the storage of data in memory for quick access and elimination of excessive garbage collection times. Sequential files are used to store the record and format data on disk. This permits loading the file into memory and minimizes the time waiting on the drive.

The program is ideal for the normal, everyday user of the C128. It incorporates the features that the usual home computer owner has need for. The manual is very well written. The program supports mailing labels, text reports, calculated reports, and others. Once a format is designed, it can be saved to disk.

It is very easy to use, and for the new owner fo the C128 who has modest database needs, it is ideal. Highly Recommended. Charles Dorian

DBMS FILE UTILITY PROGRAMS: (for dfile 128, above) $19.95 utilities package on disk for the C128. As DFILE 128, above.

This companion to dfile 128, above, contains many useful programs to increase the capacitiy and flexibility of dfile 128 by allowing the manipulation and modification of your record files.

In general, the data files developed using dfile 128 will be quite adequate for most users. However, there will be occasions when the capacity of a file is reached and the user has more data to enter. Although it is easy enough to just establish another file, problems arise when you want to print out as single file with all the data. The DBMS File Utility Program will let you merge and print the files as a single common file. These two programs, Merge Files and Print Files, are reason enough to have the disk.

At times, there may be need to establish a different file which will contain some or perhaps a large portion of the information in a previously created file. Clone File will let you clone or copy the data you need out of one file into a new file. The new file can have a totally different format than the old one.

There are two other programs on the disk: Xport file and Read file, which add significantly to this utility disk. Xport file will let you transfer dfile 128 record files into a form that wordprocessors might require or into other programsm using sequential files. This program removes non-essential structure data from the dfile 128 record files and leaves just the record. The Read file program permits the viewing of the structure of record and format files on the screen or, if desired, on a printer. This enables an understanding of formats and aids in designing new formats. As well as working with dfile128 record files, it will read any sequential file created by other programs.

The C128 owner should have a copy of both this utility disk and its allied dfile 128 disk. Highly Recommended. Charles Dorian.

PROFILE 128: $69.95 database program on disk for C128. From Pro-Line Software Inc. DOS protected. Disclaimer of warranty.

After waiting all this time for ProFile 128 to make its appearance, I expected it to have some very powerful features. I looked forward to faster data access, larger records and more fields.

For some strange reason, none of these hopes were realized. ProFile 128 is, as far as we can tell, simply ProFile 64 in 80 column format. Record length is still confined to 254 characters and there can still be only 20 fields of data in each record. Since ProFile uses Commodore's DOS, you will still get the same number of records on a diskette as you did with the 64 version (since Commodore does not allow them to be written to the back of the disk. SuperBase uses it's own DOS to allow use of both sides of the disk).

As further proof that there have been no changes to the program, one has only to compare the user's manuals. It appears that the ProFile 64 manual was retrieved from it's WordPro file and a Global Search and Replace was done to replace "64" with "128" Comparing the manual page by page, I could find no differences in wording whatsoever.

In sum, unless it is worth a considerably higher price (for no apparent reason) to see 80 columns of data without having to scroll the screen, ProFile 128 simply is not worth the money over ProFile 64. Not Recommended. -Art Lewis Kimball

CBM 1902 A: $300 13" diag. RGBI/composite monitor from Commodore.

Not the absolute best, I am sure, but this is a good choice for user's of the C128. The 1902A gives an excellent 80 column color output with vivid color, sharp characters, and overall good resolution. I am not so fond of the composite mode, where colors tend to bleed quite a bit, especially the various shades of green.

A drop down front panel reveals controls for hue, brightness, contrast, color, sharpness, and volume, plus two pushbutton switches to toggle RGB/Composite and Color/Green output. Hue, color, and sharpness have no effect on RGB output. Brightness and contrast affect both RGB and Composite screens. Unfortunately, a nice setting for the RGB screen is almost invariably too dark for the composite screen, so you will always be fiddling around with the controls. The Green screen option is not a true monochrome; it simply turns off the red and blue guns, giving something close to monochrome but without the same kind of shading. For instance, with the Green Screen option on in RGB mode, a totally blue character will not show up at all. The single speaker sound is standard quality.

On the back of the cabinet are four more knobs, controlling horizontal and vertical size and position. Set these once and forget about it. Also on the back are three sets of input: One for the RGBI, one for separated composite video - a single DIN connector, in contrast to the three separate RCA jacks on the 1702 - and one set of two RCA jacks for unmodulated NTSC standard audio and video in. There is no audio out. [This is noted for users of CBM's modified 1660 which requires an audio signal from the computer to dial. Because of the DIN connector for the composite video, there is no easy way to use a 1660 with a 1902A].

All in all, it is adequate. It works, it is reliable, and it is consistent - we have two 1902As at Midnite right now, and the bleeding on the composite screen is

equally bad on both of them. Average. Tim

MW-401: $29.95 switchable 40/80 column monitor cable for the C128 and a monochrome monitor with RCA input. From Micro R&D.

The first thing I noticed with this cable is its price - A bit higher than normal. Second: it has two recessed switches to offer 40 column color, 40 column monochrome, and 80 column monochrome. Nice options, but the recessed switches are a real challenge. I prefer toggle switches. Finally, there are two RCA output plugs - audio and video - at the end of the unshielded two conductor cable. Pretty simple, pretty straightforward. It works, but because of its price and the recessed switches, Not Recommended. Tim

INCA 40/80 CABLE: $24.95 switchable 40/80 column monitor cable for the C128 and a monochrome monitor with RCA jack. From Inca.

This a variation of the above, having only one switch to toggle between composite and RGB modes, and it has four RCA out jacks - one each for chroma, luma, audio, and standard NTSC composite video - at the end of shielded cable. The only thing it does not have is a switch for monochrome 40 composite output. The separated output is more suited to a 1702 than a single output. And it is cheaper. Highly recommended. Tim

MAGNAVOX AV7300 TUNER: $59.95 television tuner for use with computer monitors.

This accessory lets you use your computer monitor as a television set, as long as the monitor has accessible audio and NTSC video RCA input jacks (e.g. 1702, 1902, et. al.). The unit allows a range of 82 channels (2 through 83), with 13 individually tuned preselections. It accepts 75 ohm cable input, or 300 ohm antenna, and also provides for input from the computer so you can flip a switch at the tuner instead of swapping cables. The reception and the picture I get from it ranges from very good to very poor - depending on the weather and how much computer equipment I have turned on (I don't subscribe to a Cable TV service). I am glad I have it. If you want to turn your monitor into a TV, this one is Recommended. Tim

ZENITH 123 MONOCHROME: $80 12" generic green monochrome monitor. From Zenith.

Works well with a C128 when coupled with the Inca 40/80 column cable. The eighty columns is alot easier on the eyes than a 1702. If you want 80 column monochrome, this will do it. I have noticed alot of wavering of the screen image, though. Average. Tim

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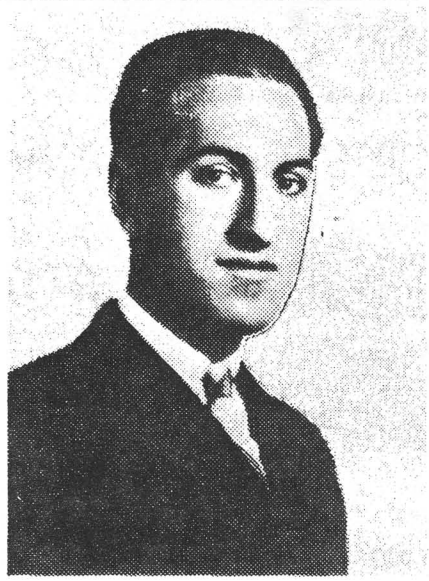

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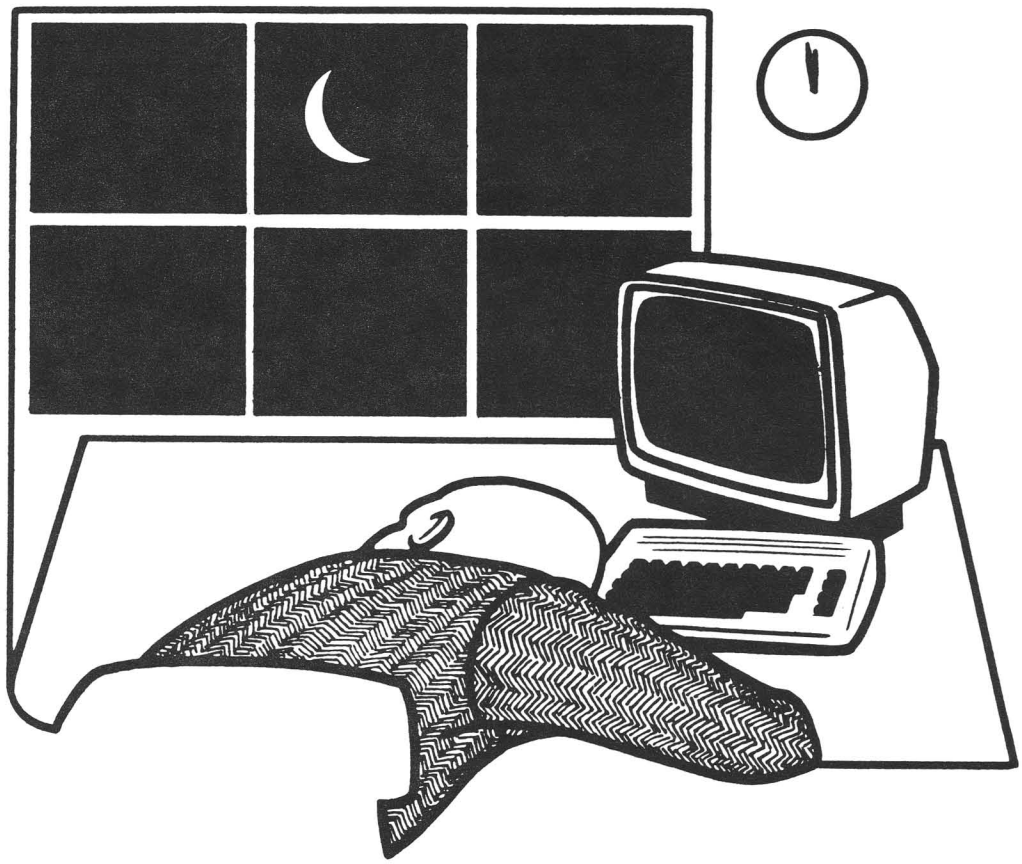
Volume 8 Issue 5

The PAPER

The First Independent U.S. Magazine for users of Commodore brand computers.



Editor's Aerie

Tim Sickbert

A few bits of information regarding material from back issues, and other assorted notes:

We need for the following people to contact us regarding material which they wrote and we published:

Sr. Cecily;
Pete Guerin;
Donald Speta; and
Jerry Hyman.

David Agee of Colorado Springs requests help in transferring machine language game programs from tape to disk. We are sending instructions to him on how to do it with a machine language monitor, but does anybody know of an easier way?

James Martin recommends the following changes to Robert Bakers Variable Cross Reference program that was published in issue #28.

"The program running time is slow, and can be cut in half or better by a few simple changes. The error checking routing in line 170 is overkill, since such disk errors rarely happen after the initial open statement... Using the variable ST...provides for emergency end of file, should the end of the program be mangled, something that INPUT#15 does not check for.

I also propose replacing the slow GET#5,C$ with a much faster GET C$ and eliminating all the subroutine calls to 1150 as follows: GETC$:V=ASC(C$+CHR$(0)): IF ST THEN 830.

The way to do this is to add POKE 781,5:SYS 65478 to line 282 and then change line: 830 SYS 65484:GOSUB 1170: CLOSE 5: CLOSE 15.

Lines 1140 and 1150 will need to be changed to: 1140 GETC$: VL=ASC(C$+CHR$(0)): IF ST THEN 830

1150 GET C$:V=ASC(C$+CHR$(0)): IF ST THEN 830

With large programs, a machine language sort routine like Lightning Sort, Fastsort, or Quicksort could be added just before printout, and the string sorting routines in lines 780- 820 could be changed: 780 NEXT X:GOTO810. Delete linies 790 and 800. This would help avoid dreaded garbage collection which slows down this program even more.

Other letters which I have found lying around include a request from Mitchell Johnson for a utility to print 8096 APL listings on 8023P and Epson MX 80 printers. He is also looking for SuperPET user's groups. Contact Mr. Johnson at Union-Endicott High School, 1200 East Main St., Endicott, NY 13760.

Jim Godlushi (spelling?) requested a source for a tractor feed for a Juki 6000. These can be ordered, I believe, from Lyco Computers which regularly advertises in the glossies. Speaking of tractor feeds, does anybody know of a tractor feed that works on a Commodore DPS 1101 daisy wheel?

I am quite certain that we have other requests for information and such, but I seem to have lost them in the pile of complaints about missed issues, missed pages, and our failure to notify subscribers of when their subscriptions run out. We are working on all of these problems.

Last month, we neglected to give the address of the MSD Information Exchange. Address inquiries to Paul Eckler, 2705 Hulman St. Terre Haute, IN 47803.

Also, I have been (repeatedly) asked to mention the CP/M public domain software service of Poseidon Electronics. Send a SASE to Poseidon Electronics at 103 Waverly Place, New York, NY 10011 for more information. I have not seen any of their disks, but judging by their catalog, they have plenty of them!

Kudos to ProLine Software, Batteries Included, et. al, who have removed or are removing DOS protection from all their

disks! Also, to RML Labs/Progressive Peripherals for choosing dongles instead of DOS protection - dongles are not ideal, but at least if you corrupt your disk, the backup will be there!.

A final note: You can find either Jim or myself online more and more. In addition to our own Punter Board (Starship MPC, 300/1200 baud, nearly 24 hours, 217 356-8056), you can find us on Q-Link (Midnite and Midnite1), Compuserve (76703,4033) and Delphi (Midnit).

LETTERS

Dear Midnite:

Thanks for the offer [to renew my subscription], I've enjoyed your publication very much in the past, however I must decline. Please allow me to tell you why.

First off, I'm going to change systems. I am presently using a CBM 8096 with 8050 drives and an 8300P printer, all in good working order and serving my needs quite well!!!

I am going to change because of Commodore and their callus attitude toward users of business equipment. They have abandoned their dealers and the owners of their equipment. I cannot use word strong enough to villify the Commodore decision to serve the **"Toy Computer"** field at the expense of serious users.

Your publication is a fine effort, I only wish that Commodore had the same integrity displayed by their users.

Best of luck.

[Illegible signature, lost envelope.]

P.S. No support translates into no local dealers and no local service. Which finally results in real trouble if you have hardware problems!

QUANTUM LINK HINTS

By: Robert W. Baker

Quantum Link released a new system diskette with updated features in mid-May. I've been using a beta test version of that software for a few weeks now and must say there definitely is quite a difference.

First of all, the message board menues have been changed. The most natural method of using the message boards is to scan them via headings then display only those messages of interest. This is the top selection of the new menu, making it quite fast to use. Also the message tree is now single threaded so you don't have to go searching for every response to a set of messages.

You now have the capability of searching a message board for a given character string. If everyone remembers to use meaningful message headings, it makes it extremely easy to find all the messages about a certain topic of interest. The older search by date is still available but only after displaying a given message.

The E-Mail functions have been updated as well, so now you can save a message onto disk and print it out later. You can now respond to a message received without having to remember the senders name or id, just press the special function key to initiate the return message.

Other features provided by the new software include improved download times, autoboot for C128 owners, and improved change access menues. Watch E-mail for announcements on other new services as Q-Link continues to expand and improve it's services.

The special interest group (SIG) message boards and their related program libraries have been reorganized recently. Most people like the new format since it makes it easier to find information of specific interest. Others dislike the greater number of message boards.

The download program libraries seem to confuse some people, but just think of them as extended message boards. First scan the headings to find the program of interest and

then display the summary or description by pressing F1. You must display this information in order to be able to get to the download menu.

If you want a copy of the program description, press F3 while the description is displayed. To print any saved program description, you can use the UTILITY program available on Q-Link to display or print the data once you've logged off Q-Link.

If a download program appears interesting, press F7 to get the download menu while the description is displayed. This can be after saving a copy on disk using F3 as mentioned. As a reminder, many of the program descriptions include a remark at the end to use F7 for download. Once you get the download menu, follow the simple prompts and everything should be simple. Just be sure to remove your Q-Link disk and use some other disk to download the program onto.

Many program libraries also contain docu- mentation files that are meant to be downloaded and printed on your system. The descriptions for these files usually indicate the file format and how it should be handled. Some of these files are formatted for using the SPRINT utility. This is the normal utility used for printing saved auditorium archives (which you can also download from Q-Link). The Sprint utility is a simple machine language program, available from Q-Link, that can copy or print a sequential file.

By the way, I now have my own area of Q-Link where you can leave questions, comments, and suggestions on any of my articles or published programs, as well as questions on any general Commodore topic. I usually check the questions every day or two and try to get back with a response the next time on.

I also have a program library area where most of my published programs will be available for downloading. My programs from the Midnite Gazette should be available before each issue is published. My programs in either of Commodore's magazines will have to wait about six weeks after publication before I can make them available on Q-Link, as per my current agreement with Commodore.

Most of my older utilities are currently available on Q-Link as well. You can reach me in the Meet the Press section of the Commodore Information Network (CIN). You'll see my name listed there in the menu and can get to the message board and program library from there.

By the way, Quantum-Link just added a New Products Information area within my section of Meet the Press. I'll be posting press releases and product update information from various companies every few days. Sometime after June, Quantum Link is planning to relocate and expand the New Product Information area as more companies begin to participate and interest grows. We plan to categorize the material to make it easier to find items of interest. Be sure to keep an eye on this section for the latest information.

COMPUSERVE HINTS

by James A. Oldfield, Jr.

Many books on using telecommunication systems have been written over the last few years. Some of these can be helpful in learning all the ins and outs of the different areas of the service. It is not my intention to cover the whole service, but rather to give some help in understanding the Commodore brand Special Interest Groups on Compuserve, and to get you around this area quickly and economically.

I've enjoyed using Compuserve off and on for over three years, and I've been quite a bit more involved with Compuserve since January when I became a SYSOP to help Wizard SYSOP Louise Redgers and Betty Knight. CBM does not handle these SIGS, so to talk with Commodore, you will have to 'GO '. So, yes, I'm prejudiced (but I also enjoy the monthly forum on Quantum Link - Thank you to all who stop by and say hello there).

All you need to get started is a computer system, a modem, terminal software, and, of course, a phone line. I normally use a 1670 modem and Compuserve's own VIDTEX software - far and away the best for alot of

downloading. Any terminal software that has Xmodem and/or a capture buffer will do, and there are dozens of good public domain terminal programs to choose from.

Each Compuserve SIG provides three main areas: The conference base (co) for real time conversations; the download base (dl) where you can find public domain text, programs, and other data; and the message base for rather obvious purposes.

My personal preference on ANY on-line system is the download section. I can't help it. There's ALWAYS one more utility or terminal program that I could use, or one more card game that I want. The download section is my favorite hang-out. So let's get on.

I will assume you have already logged onto Compuserve. For the first time, create a personal menu and set parameters. This saves time and you won't have to remember as many page numbers. To do this type 'go profile'.

Going to Commodore related SIGs. After doing the above type either 'go cbmart', go cbmcom, or go cbmprg.'

At the first prompt sign up on them (that is, become a member, there is no charge for this).

Type 'op' and set options within the SIG. Normally you would want to set your default subtopic to 'all', unless you want to see messages only on a particular topic. After

you have answered the particular questions relating to your terminal you can now go into one of three areas. 'CO' for conferencing, that is, talking to other members; 'R' to begin reading messages or 'L' to leave messages; and 'DL' to go into the various download bases. At any function prompt read the help bulletins, if neccesary, and buffer it. At the first function, type 'I' and buffer it. Note: If you've NEVER been on before, keep the menus for awhile.

After typing DL tell CIS which base you want. (At the end of this article is a cut-out, or you can copy it, for you to use when on the Compuserve Commodore related SIGs. It should be handy and cheaper than all the HELP files on-line.)

Note: On all DL's download the DIR's for a directory of all programs on that particular DL.

ALWAYS leave a SIG properly by signing off at a function prompt or main menus.

The following is an outline (brief) of theCommodore brand computer forums on CompuServe's Commodore related Special Interest Groups and a description of what each is intended for.

CBM PRG. (CBMPRG) (PCS76)

1-B128/VIC/PET/C-16/PLUS 4
For all you orphan owners there's still an outlet for your imagination.

2-High Level Utilities
Intermediate level BASIC programming aids.

3-File Writing
All aspects of file manipulation such as USR, REL, and SEQ files.

4-High Level Language
C-64 languages such as Forth, CP/M, COMAL, PROMAL, Pascal and others.

5-Peripheral Projects
Members discuss and ???? hardware projects and accessories.

6-Machine Language
Assembly code for many of the public domain programs on all three SIGs.

7-C128 Telecomm
Just as the name implies, lots of info and terminal programs written especially for your C-128.

8-C128 Utility and Misc.
Again, as the name implies. Lots of good utilities.

9-C128 CP/M
A variety of programs are available for the CP/M mode.

CBM ART/GAMES (CBMART) PCS75

1-ART/MUSIC Utilities
Graphic file converters, graphic printer files and general graphic utilities. Music utilities include music players for files created by Access Software's Music Composer and Sidplayer from Compute! Pub. 2nd Book of Commodore 64 by Hal Chamberlain, among a few.

2-Classical Music
As the name implies, most all use the music players in DL-1

3-Popular Tunes
As above but most are popular songs from the top-40 radio stations.

4-Americana Music
Another variety of music for your C-64.

5-Baroque Sounds
Harpsicord and Elizabethan music.

6-Picture=1000 Words
All kinds of pictures created by many talented artists. These can be displayed and some can be printed on your C-64 and C-128.

7-Revealing Pictures
For adult viewing only.

8-Action Games
Any graphic or other game from arcade types to cards and beyond.

9-Adventure Games
Text adventure games written for the C-64.

CBM COMM. (CBMCOM) (PCS73)

1-News and Gossip
Catch the dirt on shows, software, and the usual gossip.

2-BASIC and Utilities
One of the more popular DL's. Wedges, B-Aids, copiers, file manipulators.

3-Home and Business
Check book, phone book programs are just a few of the programs for home and business.

4-Word Processing
Has a few public doamain wp's as well as many utilities related to word processing.

5-Educational Aids
There are quizzes, tests, tutorials as well as math and analitical tests for children and adults.

6-Reviews and Demos
As the title suggests, reviews and demostrations of commercial programs.

7-Speech Synthesis
Programs to enhance your use of speech programs such as S.A.M., Covox and Magic Voice.

8-Telecommunications
Terminal programs and files relating to them.

9-Bulletin Boards
So you want to be a SYSOP eh? Well, now's your chance.

A Special Note: All DownLoad Base 0's are reserved for HELP instructions on the Commodore related SIGs.

Midnite Software Gazette

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DOWNLOAD BASES With
Descriptions.

CBM Comm. PCS73, CBMCOM

0-Help on the Forum
1-News and Gossip
2-BASIC and Utilities
3-Home and Business
4-Word Processing
5-Educational Aids
6-Reviews and Demos
7-Speech Synthesis
8-Telecommunications
9-Bulletin Boards

CBM Art/Games,PCS75,CBMART

0-Help On This SIG
1-Art/Music Utilities
2-Classical Music
3-Popular Tunes
4-Americana Music
5-Baroque Sounds
6-Picture=1000 Words
7-Revealing Pictures
8-Action Games
9-Adventure Games

CBM Program, PCS76,CBMPRG

0-Help On The Forum
1-B128/VIC/PET/C16/+4
2-High Level Utilities
3-File Writing
4-High Level Languages
5-Peripheral Projects
6-Machine Language
7-C128 Telecommunications
8-C128 utility and Misc.
9-C128 CP/M

DownLoad Commands

DES -Describes the DL
and latest uploads
BRO -Browse files
/key-specify Key to look for.
/age-Specify by age.
SCAN -Get titles of files
DOW -Download a file
UPL -Upload a file
T -Go to Top of Menu
HEL -Help
DL # -Change to another DL
EXI -Exit
R -Read a file.

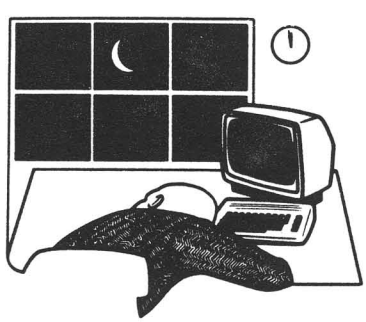
All DL Base 10s are for
SYSOP Only.

Conference (CO) Commands.

/Band x -Switch to band 'x'
/Channel #-Tune to channel #
/Day -Type time, day and date
/Exit -Exit CB
/Go mm-n -Go to Page 'mm-n'
/Handle x -Change handle to 'x'
/Job -Display your Job #
/Mon #,# -Monitor extra channels
/Nopage -Disallow pages
/Nouid -Turn off /UID
/Off -Exit CB and Log Off
/Page # -Page Job #
/Sbu #,# -Squelch by User ID
/Scr xyz -Scramble on key 'xyz'
/Smc xyz -Scr and Monitor Clear
/Squ abc -Squelch handle 'abc'
/Status -Type channel status
/Talk # -Private talk w/Job #
/Uid -User ID's w/Messages
/Unm #,# -Unmonitor channels
/Uns -Unscramble (both clr)
/Users -List On-Line Users
/Users # -users on Channel #
/Where # -List info about Job
/Where #,#-Find the User ID
/Who -Last Talker's User ID
/Xcl xyz -Xmt CLear: unscr recv

'Function:' Options (These are
the most common. Check Compuserve
for a complete list.

Log -Logs you off.
Off -Disconnects you.
Bye -Same as 'Off'
Go xxx-Go to page xxx
M -Return to Previous Menu
Exit -Return to System Menu
----Message Commands----
L -Leave a Message
S -Store message
S# -Store in Sub-Topic #
SP -Store Privately
SU -Store Unformated
Abort -Quit Message
R -Read Messages
RFN-Read message in Forward Order
RR -Read message in Reverse Order
RN -Read message starting at #
RM -Read Marked message to you
RA -Quit Read Command
RI -Read Individual Message
RE -Reply to message
T -Return to top Menu
C -Continue with next messge
RA -Read message Again
RR -Read Reply



-Control Keys-

CRTL+P -Aborts output returns to
Function:
CRTL+S -Pauses output
CRTL+Q -Resumes output
CRTL+C -A quick abort will ask for
something

DELPHI OVERVIEW

by Tim Sickbert

When thinking of online services, most Commodore users think first of Compuserve and Quantum Link. Compuserve is certainly the biggest online service, and Quantum Link is sanctioned by Commodore. But, there are other services which actively support Commodore users. There was (or is?) PlayNet - we have conflicting reports on whether or not they still exist, but most indications are that they do not. Viewtron was around for awhile. We are looking into Genie, the Source, and People Link. But Delphi is actively supporting Commodore with several dedicated and generic Special Interest Groups to attract Commodore users.

Delphi is a pleasant middle ground between the sometimes complicated sections and commands of Compuserve and the occasionally simplistic and cumbersome menues of Quantum Link. Menus and prompts are pretty much optional, but always available on request - which is helpful when wandering around unfamiliar territory.

You can get access to Delphi through local nodes set up in major cities, Uninet, or Tymnet. In the absence of a Delphi node, Uninet is preferred, as the currrent Delphi system software segregates Tymnet users. This is only important for real-time conferencing, where node and Uninet users can talk with each other, but not with Tymnet users.

Once on, however you get there, the main menu gives the options for moving to the service's general areas, including News, Library, Conference, Financial Service, Groups & Clubs, and the like. Going into Groups & Clubs gives you another menu, this time of almost two dozen Special Interest Groups, most of them focusing on computers, but others for Theology, Science Fiction, Careers, and other high end interests. Of the many computer and computer oriented SIGs on this menu, there are two strictly Commodore areas - one for the 650x series and one for the Amiga - and another SIG, MicroArtists, that is freqented most by Commodore User's.

The main interest for most Commodore User's will be Flagship Commodore, or, for the Amiga, Starship Amiga. All of the SIGs are set up pretty much the same, with announcements, a multi-channeled conference area, and a multi-topic download section. All of these are clearly labeled for what they are. Within Flagship Commodore, you will find the Forum, where online messages are left, the Conference area, for real-time conversations, and everybody's favorite, the Database section.

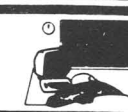
Within the database section, you have your choice of about a dozen different program areas, such as Applications, where you can find a number of nice public domain filing programs, and the like; the Starboard Journal, a monthly online magazine; Telecommunications, which offers mostly terminal software, and several others.

Each of these databases has a large number of programs which you can download using Xmodem or a capture buffer (Image files). And below the databases - it doesn't matter which one, or even where in Delphi you might be - is a personal workspace where you can create, upload, and store your own files. This is primarily used when you upload, as you first transfer it from your computer to your workspace, and then SUBMIT the file to the appropriate database.

The Special Interest Groups also offer shopping services, ongoing dynamic polls, and a Mail service that is somehow interfaced with Email on various other systems. Then there are the standard member directories and logs that can help you find other users.

Flagship Commodore has a fairly new option on its menu: The Toronto PET User's Group now has its own full fledged board. This is just like the other SIGs on Delphi, except you go through Flagship to get there, and you must join TPUG to gain access.

This special TPUG area offers access to all the published material of North America's largest Commodore User's Group. All of the magazine text and the public domain disk files are available in the



database of this Special SIG. Thus, this area provides a great number of programs and text, as well as access to TPUGs experts on various aspects of the machines. It was this TPUG SIG that brought me to Delphi in the first place, and it keeps me there. Being new, activity is rather light, but growing, and the area shows alot of promise as a resource for software and information. With the rather unreliable user support from Commodore, user's groups make alot of sense, and the presence of TPUG on Delphi shows how this longstanding and reputable user's group is trying to expand their service.

The rates are quite reasonable, with non-prime time running as low as $6.60 at hour to $10 an hour for Tymnet from Hawaii, and prime time access ranging from about $18 an hour, direct, to about $24 an hour. There is no premium for 1200 bips access, but there is a premium of about 50% for 2400 bips access, where available. The only surcharges are for some of the news services and library searches.

The support of Commodore users through the various SIGs is strong and growing. You can use almost any generic terminal program to access Delphi at 300 bips or 1200 bips from just about anywhere, and download text and programs into a buffer or directly to disk using either Xmodem, Direct File Transfer, or, in some areas, Kermit.

All in all, Delphi provides a good, comprehensive, valuable service and should be considered as an alternative to Compuserve or Quantum Link, or even as a supplement to either of these two.

STYLE IN BASIC

by

Robert Lemon

Once upon a time in a faraway land near here, I took a Pascal course in which they told me of the eveils of BASIC and the beauty of Pascal. They stressed the importance of descriptive variable and procedure names, and publically chastised anyone who dared use the variable "X." Innocent loops were indexed with variables like "INDEX" rather than "I." My arguments that good programming can occur in any computer language fell upon apple-stuffed ears. It seemed that every POKE was in my eye. In self defense, I started using several variables which make my programs readable even to some of the hard core structure apostles.

Screen colors need not be mystical. If one initializesthe following variables:

```
10 INK=646
20 PAPER=53281
30 EDGE=53280
40 BLACK=0
50 WHITE=1
60 DRED=2
70 CYAN=3
80 PURPLE=4
    ETC
```

Thereafter, one can change screen colors with code like:

```
100 POKE INK,WHITE
110 POKE PAPER,BLACK
120 POKE EDGE,DRED
```

With the availability of LRED for light red, DBLUE for dark blue, and GRAY(1) to GRAY(3) for gray tones, one need only substitute PEACH for orange and all the colors can be represented. The code is reasonable and readable.

Another interesting options is to define a vertical tab function.

```
100 VTAB$="[home]"
110 FOR I = 1 TO 23
120 :   VTAB$=VTAB$+"[down]"
130 NEXT I
```

Printing on various lines can then be

readable. No more POKE to 216... one merely prints the appropriate part of VTAB$. In conjunction with the normal TAB() function, any position on the screen can be accessed. For example, to print the word "here" in the fifteenth line and the tenth column, one would enter:

```
140 PRINT LEFT$(VTAB$,15);TAB(10);"HERE"
```

This can be expanded to a technique for consistently putting messages and nputs on the bottom line of the screen. One can define a variable COM in the following manner:

```
140 SPACE$=""
150 FOR I = 1 TO 38
160 :   SPACE$=SPACE$+" "
170 NEXT I
180 COM$=VTAB$+SPACE$+VTAB$+" [rvs on]"
```

Then to print a message at the bottom of the screen, one enters:

```
200 PRINT COM$;"INITIALIZING DISK."
```

One can erase this message thereafter by using:

```
210 PRINT COM$
```

Similarly, a heading can be built and used repetitively within a program.

```
140 LINE$=""
150 SPACE$=""
160 FOR I = 1 TO 38
170 :  LINE$=LINE$+"="
180 :  SPACE$=SPACE$+" "
190 NEXT I
200              HEADING$="[clr/hme][rvs
on]"+LINE$+"[home][down]"
     +SPACE$+"[home][down][down]"+LINE$
```

To print a fancy title takes no more than:

```
210 PRINT HEADING$;"MAIN MENU"
```

The heading can, of course, be dressed up with the graphics symbols. all these items can be combined in programs to produce fancier screen output with minimum hassle. Furthermore, the same idea can be extended into several other programming areas. the point is easy coding with maximum readability. The end is better looking, better structured programs.

UPDATE

LANGUAGE SPEEDS on the C64

In issue 29, we published an article by Brian Junker about the relative speeds of various languages. One language that was sorely neglected was COMAL. Here is a handed down (via the COMAL User's Group) article which originally appeared in SPRITE newsletter.

BENCHMARK
1000 PRIMES

by Kevin Quiggle

A recent issue of "Midnite Software Gazette" (Issue 29, Nov.-Dec. 1985) published an article by Brian Junker in which run times were listed for 16 different languages calculating the first 1000 prime numbers. Unfortunately, none of the 16 languages listed were COMAL. Luckily, our own SPRITE magazine ...had already published a prime number program in Oct. 84. It was a simple matter to modify the program to calculate and time the generation of thte first 1000 prime numbers. The results are shown in the table accompanying this article (I have borrowed all but the COMAL times from Midnite). Two times are shown for each language, one is for a run with the nubmers caluculated but not printed, the other is for a run with the numbers printed to the screen.

The results are impressive for COMAL. Not surprisingly, machine langage gave the fastest time, with compiled "C Power" (which compiles to machine language) second. Coming in a very respectable third is COMAL, which was not only faster than BASIC, but was also faster than compiled BASIC. Even COMAL 0.14 was twice as fast as BASIC 7.0 running in FAST mode! This is not very surprising to those of us who have been using COMAL for some time. The only thing that does surprise us is that some people are still using BASIC!

REM	Print	No Print	Language
a	32	26	Machine language
b	49	37	C Power
c	95	57	COMAL 2.0
d	103	61	COMAL 2.0
e	93	86	KYAN Pascal
f	100	93	Super Pascal
g	136	122	Oxford Pascal
h	165	122	COMAL 0.14
i	195	176	Speedwriter
j	198	178	Super C
k	235	---	Speedwriter
l	246	202	C64 FORTH
m	312	---	HES FORTH
n	328	304	BASIC 7.0 FAST
o	342	330	KYAN PASCAL
p	427	---	Simon's BASIC
q	509	490	BASIC 2.0
r	696	634	BASIC 7.0
s	4503	4467	Commodore LOGO

REMARKS:

a. MOS Technologies.
b. Proline Software, compiled to ML.
c. Optimized Using interger counters.
d. No optimization.
e. Kyan Advanced, compiled to ML.
f. Abacus, compiled to p-code.
g. Precision Software, compiled to p-code.
h. Integer flag array to conserve memory.
i. CodeWriter; BASIC compiler used with "speed-up" options.
j. Abacus, compiled to p-code (?).
k. BASIC compiled, no special options.
l. Abacus (interpreted language).
m. HES (interpreted language).
n. C128 FAST (2 MHz) BASIC.
o. KYAN Software, compiled to p-code.
p. Some Simon's BASIC enhancements, e.g. WHILE - WEND, were used.
q. Commmodore 64 BASIC.
r. C128 SLOW (1 MHz) BASIC.
s. Estimated time - LOGO ran out of memory at the 306th prime.

[Note: We do not at present have the source codes for these benchmarks. We will try to collect them from the various sources. If interested, let us know. Ed.]

SEQUENTIAL DATA FILE SPLITTER

By Robert W. Baker

Wow, another disk utility! Seems like all I've been doing for the past few weeks is writing various disk utilities. Well, this handy program lets you split sequential disk data files into multiple pieces.

When run, the program first takes a few seconds to initialize several arrays that will be used for buffering and decoding data. It then asks for the filename of a desired input file. This file must be a sequential data file (SEQ) and must exist on the disk. If there is any problem opening the file, the error message returned from the disk controller is displayed and the program aborts.

If all is ok, a short menu indicates the available functions: (1) copying and splitting the data, (2) displaying the data, or (3) scanning the file for statistics. Simply enter the number for the desired function. If you enter 'Q' the input file is closed and the program restarts. If no filename is entered when prompted for the input filename, the program terminates.

Starting with the simplest function first, option (3) scans the input file and displays basic statistics about the file. The statistics are updated as the program reads the data from the disk file. The program displays the number of records read, the total size of the file to that point, plus the maximum and average record length in the file. A record is considered any block of data terminated with a RETURN (ASCII 13) character.

You can suspend the data scan at any time by pressing 'S' while the file is being read. A prompt will then indicate you can press 'C' to continue the scan or 'Q' to quit and return to the starting prompt for another input filename. The end of the file will be indicated when it is reached, if allowed to scan to the end. You can then choose to process another input file or terminate the program.

The next function, (2) can be used to display the contents of a data file. Data records are read into internal buffers that are designed to hold 20 records or about 5K of data at one time. How much data is read depends on the actual record lengths. Each buffer can only hold 254 bytes of information, so long records use multiple buffers.

Before reading data into the internal buffers, you have the option of skipping any number of records in the input file. The default is to skip zero; otherwise enter the number of actual records that should be skipped. The screen will show the records being skipped and you can press 'Q' to quit at any time. After the records are skipped, press 'C' to continue or 'Q' to quit.

The program then proceeds to read the data and fill the internal buffers. Then the data is displayed, along with the size of the file to the start of that screen. A prompt is also displayed at the bottom of the screen that allows you to change the display format, continue with the next screen of data, or terminate the display and restart the program.

The data is first displayed as ASCII text, with the record number, colon, then 32 characters of text. Pressing 'H' will change the display format to hexadecimal, displaying the first 8 bytes of each record in hexadecimal. Pressing 'A' will return to the ASCII display format.

Both of these displays are 'short' formats, only displaying as much of the start of each record as will fit on one screen line. Pressing 'L' will change the current display format to a 'long' form. A long form display will show the entire contents of each record, up to the end of the screen. Pressing 'S' will return the display to the short form.

A long hexadecimal display format will display 8 bytes per line while a long ASCII display format will display 32 bytes per line, both up to the end of the record or the end of the screen. The display format can be changed back and forth however desired. Since the data is buffered, nothing is lost and the same data is re-displayed when changing formats. Whatever format is selected is kept for subsequent screens.

When continuing to display data, the next screen will start with the record following the last record displayed in the previous screen. If that record was only partially displayed (but smaller than an entire screen), it will be moved to the top of the next screen with the next data following it. There will be a pause between displaying screens as the internal buffers are filled with more data from the input file.

Function (1) is the meat of the program. This is the function that allows you to split a given file into several pieces. You have the option of selecting whether or not you want space compression when copying data to the new file. If selected, multiple spaces are eliminated, leaving only a single space between data. Leading and trailing spaces within the record are deleted. If selected, space compression is used for ALL output files created from that input file.

The program asks for the filename of the desired new output file. The filename entered should not exist on the disk. If it does exist, the program asks if it's ok to scratch the old data file and create a new file with the same name. If it's not ok, the program asks for another name for the output file. If the file does exist and you've instructed the program to scratch it, the file is deleted and the program continues.

Once the desired output file is opened properly, you have the option of skipping any number of records in the input file. The default is to skip zero; otherwise enter the number of actual records that should be skipped. The screen will show the records being skipped and you can press 'Q' to quit at any time. After the records are skipped, press 'C' to continue or 'Q' to quit.

Whether or not records are skipped, the program then checks if you know how many records you want copied to the output file. Entering an asterisk (*) will copy the rest of the input file. If a specific

number is entered, that number of records will be copied and the screen will indicate the records being copied. You can press 'S' to stop the copy at the end of any record. Once stopped, you can press 'C' to continue the copy or 'Q' to quit. After copying a specific number of records the output file is closed and you can open another output file if desired and not at the end of the input file.

If you don't know how many records of the input file you want to copy, simply enter zero for the number of records to copy. This causes data from the input file to be read into the internal buffers and displayed before it's copied to the output file. This is exactly like the display function (2) except the data is written to the output file as each screen is displayed while stepped through the file.

You can still change display formats between ASCII (A), Hex (H), Short (S) and Long (L). The continue (C) option, in this case, copies all the displayed records and displays the next batch. The input prompt now includes a Split (X) option that allows copying up to a specified record number.

After selecting the split option, enter the record number of the LAST record to be copied to the output file. It must be one of the currently displayed records or one currently in the internal buffers. If an invalid record number or any other invalid input is entered, it's ignored and the prompt is re-displayed. If 'C' is entered, the split function is canceled and the normal input prompt is displayed under the data.

After splitting a file at a specific record, the output file is properly closed and you can continue with the current input file or quit. If you continue, you can enter another output file and the process continues from that point in the input file. If space compression was selected at the start, it's used for all output files. If data is displayed again while copying, the previously selected display format remains in effect.

One final note, any opened output file that does not have data copied to it will contain four bytes of data by default of the system. Thus, if the program is terminated after specifying an output file, that file will exist and will contain garbage data. Therefore, the file should be deleted before it is misused.

Also, it should go without saying that this program should not be stopped with the RUN/STOP key. This would leave various files open and not all data may be written to the output file. Any disk with improperly closed files should not be used until it is validated, since it may cause corruption of other disk files. Validation of the disk, however, will eliminate any and all open files.

This program can be rather slow, especially if long record lengths are being handled. It can be speeded up considerably by compiling the program for your particular system. Since generic BASIC commands were used throughout, the program should run (as is or compiled) on the C128 and C64 as well as on older PET and CBM systems.

I've tried to test this program as thoroughly as possible but there is always that possibility that something slipped by. I would stongly recommend keeping a copy of any original input files, just in case something happens when creating a new output file.

If entering this program from the printed listings, use care when first trying the program. For convenience, a copy of this program should be available in my program library area of Quantum Link's Meet the Press section of the Commodore Information Network (CIN). If you have any problems or questions with this, or any of my other programs, you can reach me via my question and answer message board on Q-Link.

SIMPLE COPY

By Robert W. Baker

Here's a very quick and simple, but extremely handy, program for owners of Commodore systems with single disk drives. How often do you need to copy a short

machine language program, or a short sequential data file from one disk to another? This little program can do it reasonably quickly and painlessly. Now you can easily copy the DOS WEDGE, or any other short ML program, from one disk to another without knowing anything more than the filename of the program.

The Simple Copy program first asks if you want to copy a program file (P=PRG) or sequential data file (S = SEQ). This sets the proper parameter in the open command that is used to actually open the file. The program then asks for the exact filename of the desired file to be copied and opens the file for input (reading). All disk operations assume a single drive disk that is addressed as device 8 and all commands are sent to drive zero.

After sucessfully opening the specified file, the program proceeds to read the file byte by byte using a GET# command. A GET# command is used to allow reading any kind of data. An INPUT# command would require input strings limited to 80 characters terminated with a carriage return and not containing any special characters like colons, quotes, etc. This allows any kind of file data to be copied.

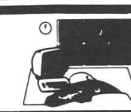
The data that is read from the input file is saved in sucessive elements of a large string array (B$), with up to 254 bytes stored in each string. The program is currently set up to allow copying up to about 32K of data without getting into trouble. This seems like a reasonable limit for C64 systems. C128 owners may want to try enlarging the size of the B$ array in line 190 and expanding the read loop by changing the 128 limit for X in line 250.

Each disk block of the input file takes about 10 seconds to read and store in memory. Once the entire input file is read, you're instructed to insert the desired output file. After entering a filename for the new output file, the new file is written onto the disk. Writing the new file only takes about a second per disk block, so it goes pretty quick.

After the first copy is written onto disk, you can make as many additional copies as desired. Each copy can be on whatever disk you like, and each copy can be named independently. There is no limit on the number of copies you can make once the program is in memory.

Any disk errors encountered during reading the input file or writing any of the output files will terminate the program. However, a brief disk error message will be displayed to indicate the error reported by the disk controller.

```
100 rem  sequential data file splitter
110 rem       by: robert w. baker
120 rem  15 windsor dr, atco, nj 08004
130 :
140 print"[CLR][DOWN]     sequential data f
ile splitter[DOWN]"
150 print"this utility allows easily splitt
ing"
160 print"large sequential data files into
two or"
170 print"more smaller pieces.[DOWN]"
180 print"it also allows just displaying fi
le"
190 print"data or scanning for file statist
ics": gosub 2100
200 if cr$<>"" then 240
210 print"setting up...[UP]": dim d$(21),d(
21),h$(255): cr$=chr$(13)
220 c$="0123456789abcdef": for x=0 to 15: d
$(x)=mid$(c$,x+1,1): next x
230 for x=0 to 15: w=x*16: for y=0 to 15: h
$(w+y)=d$(x)+d$(y): next y,x
240 c$="in": gosub 2120: f1$=f$: if f$="."
then end
250 close 15: open 15,8,15,"i0": gosub 2300
260 close 5: open 5,8,5,f1$+",s,r": gosub 2
300: rn=1:i=0:j=0:k=0:fs=0
270 print"[DOWN]ok, available functions are
:[DOWN]"
280 print"   1)  copy data and split file"
290 print"   2)  display data without copyi
ng"
300 print"   3)  scan file for statistics[D
OWN]"
310 print"which function (q=quit): ";
320 get c$: if c$="" then 320
330 f=val(c$): if c$="q" then print c$: got
o 2320
340 on f goto 350,480,1810: goto 320
350 print"[CLR]data is normally copied unch
anged but"
360 print"multiple, leading and trailing sp
aces"
370 print"can be eliminated if desired.": g
osub 2100
380 print"space compression wanted";: gosub
 2190: sc=0: sc$="without"
390 if c$="y" then sc=1: sc$="with"
400 print"[CLR]data will be copied from": g
osub 2040: gosub 2030: gosub 2050
410 gosub 2100: c$="out": gosub 2120: f2$=f
$: if f$="." then 1980
420 close 6: open 6,8,6,f2$+",s,w": input#1
5,en,em$,et,es
```



```
430 if en=0 then 480
440 if en<>63 then 2310
450 print"[DOWN]file all ready exists![DOWN
]": print"ok to delete old file";
460 gosub 2190: if c$="n" then400
470 print"[DOWN]ok, deleting file...": prin
t#15,"s"+f2$: goto 420
480 sz=0: sp=0: m$="copy": if f=2 then m$="
display"
490 print"[CLR]enter number of records to s
kip in": gosub 2040
500 print"before starting to ";m$;" data":
gosub 2050: gosub 2080
510 input"#records to skip:[RGHT][RGHT][RGH
T]0[LEFT][LEFT][LEFT]";c$: if c$="0" then 7
30
520 if c$="q" then 1980
530 r=val(c$): if r=0 then 490
540 nr=0: print"[CLR]skipping data in": gos
ub 2040
550 print"[DOWN]     [RVON]press 'q' to qui
t at any time": gosub 2100: print
560 x=1: if j<2 then 630
570 print"[UP]skipping buffered records"
580 sz=sz+len(d$(x)): x=x+1: if x=j or d(x)
=0 then 620
590 if d(x)=d(x-1) then 580
600 nr=nr+1: if nr<r then 580
610 for y=x to j: d(y-x+1)=d(y): d$(y-x+1)=
d$(y): next y: j=j-x+1: goto 630
620 j=1: if k=900 then nr=nr+1
630 print"[UP]number of records skipped..."
;nr: if nr=r then 700
640 if fs>0 then 1950
650 get c$: if c$="q" then 1980
660 gosub 2240
670 if ss=0 then sz=sz+len(b$)
680 if c$<>cr$ then 640
690 nr=nr+1: rn=rn+1: goto 630
700 if j<2 then if fs>0 then 1950
710 gosub 2100: print"specified #records ha
ve been skipped"
720 gosub 2160: if c$="q" then 1980
730 if f=2 then 1110
740 sz=0: print"[CLR]enter number of record
s to copy": gosub 2020
750 print"  without displaying data.": gosu
b 2050: gosub 2100
760 print"if zero (0) is entered, the recor
d data"
770 print"will be displayed before being co
pied,"
780 print"to help find the desired split po
int."
790 print"if an asterics (*) is entered,"
800 print"all remaining records will be cop
ied.": gosub 2080
810 input"#records to copy:[RGHT][RGHT][RGH
T]0[LEFT][LEFT][LEFT]";c$: if c$="0" then 1
110
820 if c$="*" then r=1e8: goto 850
830 if c$="q" then 1980
840 r=val(c$): if r=0 then 740
850 nr=0: q=1
860 print"[CLR]copying data...": gosub 2020
: gosub 2090: print"[DOWN][DOWN][DOWN]";
870 x=1: if j<2 then b=-1: goto 940
880 print"[UP][UP][UP]copying": print"[DOWN
]  buffered records"
890 gosub 2220: x=x+1: if x=j or d(x)=0 the
n 930
900 if d(x)=d(x-1) then 890
910 nr=nr+1: if nr<r then 890
920 for y=x to j: d(y-x+1)=d(y): d$(y-x+1)=
d$(y): next y: j=j-x+1: goto 940
930 j=1: if k=900 then nr=nr+1
940 print"[UP][UP][UP]#records copied...";n
r
950 print"[DOWN]new file size.....";sz: if
nr=r then 1050
960 if fs>0 then 1950
970 if q=1 then 1000
980 gosub 2100: print"copy suspended,": gos
ub 2160: if c$="q" then 1980
990 q=1: goto 860
1000 if q=1 then get c$: if c$="s" then gos
ub 1090
1010 if fs>0 then 940
1020 gosub 2240: if ss=0 then print#6,b$;:
gosub 2300: sz=sz+len(b$): b=0
1030 if c$<>cr$ then 1000
1040 b=-1: nr=nr+1: rn=rn+1: on q goto 940,
860
1050 if j<2 then if fs>0 then 1950
1060 close 6: gosub 2100: print"specified #
records have been copied,"
1070 print"output file completed.": gosub 2
160: if c$="c" then 400
1080 goto 1980
1090 gosub 2100: print"copy will be stopped
 at the end of the"
1100 print"current data record.": q=2: retu
rn
1110 if j=0 then a=1: s=1: j=1
1120 if fs>0 then 1220
1130 print"[CLR][DOWN][DOWN][DOWN]reading d
ata into internal buffers...": b=-1: i=j
1140 d(i)=rn: d$(i)=""
1150 gosub 2240: if ss=0 then d$(i)=d$(i)+b
$: b=0
1160 if fs=0 then 1190
1170 d(i+1)=0: d$(i+1)="": if d$(i)="" then
 d(i)=0
1180 goto 1220
1190 if c$=cr$ then rn=rn+1: b=-1: goto 121
0
1200 if len(d$(i))<253 then 1150
1210 i=i+1: if i<21 then 1140
1220 gosub 2000: if d(1)=0 then 1950
1230 gosub 2110: x=1: l2=0: l1=32: if a=0 t
hen l1=8
1240 z=1: l1=l1: if d(x)=0 then print"*****
* (end of file)": goto 1400
1250 if x=1 then 1290
1260 if d(x)<>d(x-1) then 1290
1270 if s=1 then 1390
1280 print"[7 spc]";: goto 1300
1290 w=d(x): print right$("[6spc]"+str$(w),
6);":";
1300 y=len(d$(x)): if l1>y then l1=y
1310 for k=z to l1: c$=mid$(d$(x),k,1): q=a
sc(c$)
1320 if a=0 then print h$(q);" ";: goto 135
0
1330 if (q and 127)>31 then print c$;: goto
 1360
1340 print ".";
1350 if c$=cr$ then k=899
```

```
1360 next k: print: l2=l2+1: if l2=20 then
1400
1370 if (s=1) or (k>=254) then 1390
1380 z=z+l1: l1=l1+l1: if l1<256 then 1280
1390 x=x+1: if x<21 then 1240
1400 gosub 2110: print"switch to ";: if a=1
 then print"hex(h)";
1410 if a=0 then print"ascii(a)";
1420 print" or ";: if s=1 then print"long(l
)";
1430 if s=0 then print"short(s)";
1440 print" display": sp=0
1450 if f=1 then print"quit(q), copy(c) or
split(x) this data";
1460 if f=2 then print"quit(q) or continue(
c) to display data";
1470 get c$: if c$="" then 1470
1480 if c$="q" then 1980
1490 if c$="a" then a=1: goto 1220
1500 if c$="h" then a=0: goto 1220
1510 if c$="s" then s=1: goto 1220
1520 if c$="l" then s=0: goto 1220
1530 if c$<>"c" then 1570
1540 if (s=1) or (k=900) then 1640
1550 if d(1)<>w then w=w-1
1560 goto 1640
1570 if (c$<>"x") or (f=2) then 1470
1580 print"[UP][UP]": print"[39 spc]"
1590 print"[38 spc][UP][UP]"
1600 print"enter record# of last record to
copy":
1610 input"or 'c' to cancel split:[RGHT][RG
HT][RGHT].[LEFT][LEFT][LEFT]";c$: if c$="c"
 then 1220
1620 x=val(c$): if x=0 or x<d(1) or x>w the
n 1580
1630 w=x: sp=1
1640 x=1: b=-1: if f=1 then print"[CLR][DOW
N][DOWN][DOWN]copying data from internal bu
ffers..."
1650 gosub 2220: x=x+1: if x>20 then 1710
1660 if d(x)=0 then 1940
1670 if d(x)<=w then 1650
1680 for y=x to 20: d(y-x+1)=d(y): d$(y-x+1
)=d$(y)
1690 w=y: if d(y)=0 then y=90
1700 next y: j=w-x+2: goto 1770
1710 j=1: x=1: d$(1)="": if k=900 then 1770
1720 if len(d$(1))>252 then gosub 2220: d$(
1)=""
1730 if fs>0 then 1940
1740 gosub 2240: if ss=1 then 1730
1750 d$(x)=d$(x)+b$: b=0: if c$<>cr$ then 1
720
1760 gosub 2220: rn=rn+1
1770 d(j)=-1: if fs>0 then d(j)=0: d$(j)=""
: j=j+1
1780 if sp=0 then 1120
1790 if d(1)=0 then 1940
1800 gosub 2000: goto 1050
1810 rl=0:sz=0:ml=0:al=0:sc=0:rn=0
1820 print"[CLR]   scanning file: ";f1$: go
sub 2090: print"[DOWN][DOWN][DOWN][DOWN][DO
WN]"
1830 print"[UP][UP][UP][UP][UP][UP]#records
.....";rn
1840 print"[DOWN]total file size.....";
sz
1850 print"[DOWN]maximum record length...";
ml
1860 print"average record length...";al;"
    "
1870 if fs>0 then 1950
1880 get c$: if c$="s" then 1920
1890 gosub 2240: rl=rl+1: if b$<>cr$ then 1
870
1900 rn=rn+1: sz=sz+rl: al=int(sz/rn): if r
l>ml then ml=rl
1910 rl=0: goto 1830
1920 gosub 2100: print"scanning suspended,"
: gosub 2160: if c$="c" then 1820
1930 goto 1980
1940 gosub 2000
1950 close 5: close 6: gosub 2100
1960 print"end of file!": print"[DOWN]want
to process another file";
1970 gosub 2190: if c$="n" then 2320
1980 close 5: close 6: close 15: goto 140
1990 rem ***** subroutines *****
2000 print"[CLR]";: if f=1 then print"outpu
t ";
2010 print"file size: "sz: return
2020 print"  from file: ";f1$: print"    to
 file: ";f2$
2030 print"  ";sc$;" space suppression": re
turn
2040 print"  input file: ";f1$: return
2050 print"  now at input record#:";
2060 if j<2 then print rn: return
2070 print d(1): return
2080 print"[DOWN]otherwise, enter 'q' to qu
it": goto 2100
2090 print"[DOWN]     [RVON]press 's' to st
op at any time"
2100 print: gosub 2110: print: return
2110 print"[38 dashes]": return
2120 print"enter name of desired ";c$;"put
file"
2130 input"[RGHT][RGHT][RGHT].[LEFT][LEFT][
LEFT]";f$: if f$="." then return
2140 c$=left$(f$,2): if c$<>"0:" and c$<>"1
:" then f$="0:"+f$
2150 return
2160 print"[DOWN]press 'c' to continue, 'q'
 to quit"
2170 get c$: if c$<>"c" and c$<>"q" then217
0
2180 return
2190 print" (y/n): ";
2200 get c$: if c$<>"y" and c$<>"n" then220
0
2210 print c$: return
2220 sz=sz+len(d$(x)): if f=2 then return
2230 print#6,d$(x);: goto 2300
2240 get#5,b$: fs=st: gosub 2300: if b$=""
then b$=chr$(0)
2250 c$=b$: ss=0: if sc=0 then return
2260 if b<0 then if b$=" " then ss=1: retur
n
2270 if b$=" " then b=1: ss=1: return
2280 if b>0 then b=-1: if b$<>cr$ then b$="
"+c$
2290 return
2300 input#15,en,em$,et,es: if en=0 then re
turn
2310 print: print"[RVON]disk error:[RVOF]";
en;"   trk/sec:";et;"/";es: print em$
2320 close 5: close 6: close 15
```

```
120 rem          simple copy
140 rem       by: robert w. baker
170 :
180 print"[CLR][DOWN][DOWN]          s i m p
 l e    c o p y[DOWN][DOWN][DOWN]"
190 dim b$(130): close 15: open 15,8,15
200 print"[DOWN][DOWN]copy prg (p) or seq (
s) files: ";
210 get t$: if t$<>"p" and t$<>"s" then 210
220 print t$
230 print spc(11);"[DOWN][DOWN][RVON]insert
 input disk[DOWN][DOWN]": print"input";: go
sub 370
240 open 5,8,5,"0:"+f$+","+t$+",r": gosub 3
90: print"[DOWN][DOWN]"
250 for x=1 to 128: b$(x)="": z=x: print"[U
P]block:";x
260 for y=0 to 253: get#5,c$: ss=st
270 if c$="" then c$=chr$(0)
280 b$(x)=b$(x)+c$: if ss=64 then x=200: y=
300
290 next y,x: close 5: if x<200 then print"
[DOWN][DOWN]file too big": end
300 print spc(11);"[DOWN][DOWN][RVON]insert
 output disk[DOWN][DOWN]": print"output";:
gosub 370
310 open 5,8,5,"0:"+f$+","+t$+",w": gosub 3
90: print"[DOWN][DOWN]"
320 for x=1 to z: print#5,b$(x);: gosub 390
: print"[UP]block:";x: next x
330 close 5: print"[DOWN][DOWN]want to outp
ut another copy (y/n):";
340 get c$: if c$<>"y" and c$<>"n" then340
350 print c$: if c$="y" then300
360 goto410
370 input" filename:[RGHT][RGHT][RGHT].[LEF
T][LEFT][LEFT]";f$: if f$="." then 410
380 close 5: return
390 input#15,en,em$,et,es: if en=0 then ret
urn
400 print"disk error": print en;em$;et;es
410 close 5: close 15
```

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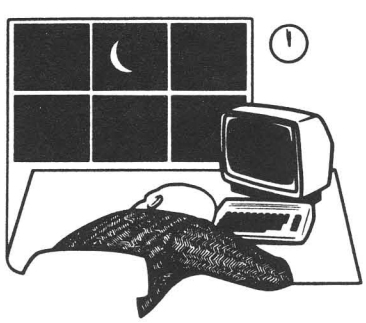

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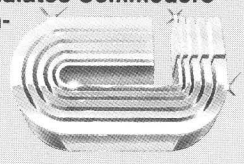

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